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**UNITED STATES DISTRICT COURT
FOR THE CENTRAL DISTRICT OF CALIFORNIA**

CALIFORNIA DEPARTMENT OF
TOXIC SUBSTANCES CONTROL
and the TOXIC SUBSTANCES
CONTROL ACCOUNT,

Plaintiffs,

v.

NL INDUSTRIES, INC., et al.,

Defendants.

No. 2:20-cv-11293-SVW-JPRx

**PLAINTIFFS' POST-TRIAL BRIEF
FOR PHASE III DIVISIBILITY
TRIAL**

Judge: Stephen V. Wilson
Action Filed: December 14, 2020
Trial Date: August 1, 2023

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Restatement (Second) of Torts § 433A (Am. L. Inst. 1965).....	16, 21
Restatement (Second) of Torts § 433B (Am. L. Inst. 1965).....	17, 31

PLAINTIFFS' POST-TRIAL BRIEF FOR PHASE III TRIAL

I. Introduction and Executive Summary

Defendants have failed to prove their divisibility affirmative defense, which entails a “substantial” burden of proof and is found only in “rare cases,” especially at complicated CERCLA facilities like the Vernon Plant with a long history of hazardous substance releases that are causally linked to many different contributors. *See Pakootas v. Teck Cominco Metals, Ltd. (Pakootas IV)*, 905 F.3d 565, 588–89 (9th Cir. 2018).

Every Defendant violates two comprehensiveness requirements for divisibility (apportionment) analyses: they fail to consider “each cause” of the contamination, *see Burlington N. & Santa Fe Ry. Co. v. United States (Burlington)*, 556 U.S. 599, 614 (2009), and they fail to account for the “the entirety of contamination” at hand, *see Pakootas IV*, 905 F.3d at 592. As for the each-cause requirement, no defense expert presents an apportionment method that accounts for each cause of the contamination. For example, NL Industries, Inc.’s (“NL”) expert Dr. Andy Davis myopically focuses only on his client’s contribution to the harm, and Gould Electronics Inc.’s (“GEI”) expert Steve McGinnis altogether fails to account for arrangers and transporters. Meanwhile, Timothy S. Simpson, an expert for four of the arranger Defendants, offers an apportionment that would assign *zero* liability to the Vernon Plant’s former owners and operators.

As for the entirety-of-contamination requirement, no expert addresses all of the contamination in the Vernon Plant and the Industrial Area. For example, Dr. Davis altogether ignores soil contamination in the Industrial Area and soil contamination at the Vernon Plant deeper than 5 feet, notwithstanding that such contamination is undoubtedly relevant to divisibility.

Instead of proposing an apportionment method that would apply to the totality of the contamination, each defense expert uses a slice-and-dice approach that splits the contamination into sub-harms for divisibility purposes. However, no Defendant

1 meets the stringent requirements that courts have imposed when parties attempt to
2 divide a contaminated site into separate and distinct sub-harms. The Vernon Plant and
3 the Industrial Area are not susceptible to such an approach because the contamination
4 is contiguous, commingled, and a product of common industrial practices spanning
5 nine decades.

6 In addition, Defendants' divisibility defenses fail for numerous other reasons.
7 For example, Dr. Davis improperly considers equitable principles when apportioning
8 liability, and his time-based apportionment methods bear no relationship to NL's
9 contribution to the harm. Similarly, Mr. Simpson's assumption that the mass of lead
10 shipped by an arranger to the Plant can serve as a proxy for their causal contribution
11 to the contamination is inconsistent with the Plant's history. Mr. McGinnis's
12 apportionment analysis ignores three time periods totaling nearly a decade when GEI
13 contributed to the contamination. Dr. Kristin Robrock, who provides a narrow opinion
14 on behalf of arranger Clarios, LLC's ("Clarios") that subsurface trichloroethylene
15 ("TCE") contamination is distinct from subsurface lead contamination, ignores how
16 subsurface TCE and lead contamination are commingled and inseparable. GEI's other
17 expert Dr. Shahrokh Rouhani, whose opinions are narrowly limited to the Plant's
18 North Yard, offers only a statistical analysis that ignores the most relevant data, fails
19 to account for confounding variables, and offers no useful conclusions one way or
20 another. Dr. William G. Cutler, an expert for four of the arranger Defendants whose
21 opinions the Court already rejected after the Phase II trial, adds nothing useful to the
22 analysis.

23 Defendants have resorted to shaky divisibility analyses because the incomplete
24 record evidence does not provide "a reasonable basis for determining the contribution
25 of *each cause* to [the] single harm," *see Burlington*, 556 U.S. at 614. Defendants have
26 not met their burden to prove divisibility. Therefore, the Court should consider
27 Defendants' arguments about their causal responsibility at a future equitable
28 allocation phase, which will be governed by a flexible framework that accounts for a

1 broader range of factors than the rigid and technically demanding divisibility standard
2 that applies now.

3 This brief is organized to aid the Court’s review of the complicated record. Part
4 II addresses the standard of proof. Part III provides a broad review of Defendants’
5 divisibility theories and provides the Court several straightforward grounds to reject
6 their divisibility defenses. Part IV provides a far more detailed and exhaustive analysis
7 should the Court wish to delve into the many flaws of Defendants’ arguments.

8 **II. The Standard of Proof**

9 **A. Defendants Must Make a Difficult Set of Showings Under a** 10 **Preponderance of the Evidence Standard.**

11 At the beginning of trial, the Court asked the parties how to reconcile *Pakootas*
12 *IV*’s holding that a divisibility defense must be proved by a preponderance of the
13 evidence, with its holding that a defendant bears a “substantial” burden. *See Pakootas*
14 *IV*, 905 F.3d at 589.

15 This tension is easily resolved: a defendant’s *evidentiary burden* for divisibility
16 is a preponderance of the evidence. *See id.* However, the elements that must be proved
17 by a preponderance are difficult to establish by their very nature, especially at a
18 complex site like the Vernon Plant. *See id.* at 588–89. Consequently, the Ninth Circuit
19 in *Pakootas IV* held that a defendant must undertake an “intensely factual”
20 “divisibility analysis,” and that their “burden is substantial” as a practical matter. *Id.*
21 (quotations omitted). To analogize, negligence and gross negligence are each proved
22 by a preponderance of the evidence, but gross negligence—“the lack of any care or an
23 extreme departure from what a reasonably careful person would do”—is much harder
24 to prove than simple negligence. *See California Civil Jury Instructions* § 425 (2023).

25 Here, each Defendant must prove each aspect of their divisibility defense by a
26 preponderance. That defense involves a difficult two-step apportionment test: whether
27 the “relevant harm”—“the entirety of contamination at a site that has caused or
28 foreseeably could cause a party to incur response costs”—(1) “is theoretically capable

of apportionment,” and (2) if so, that “the record provides a reasonable basis on which to apportion liability.” *Pakootas IV*, 905 F.3d at 588–89, 592 (quotations omitted). Each Defendant must “submit evidence of the appropriate dividend and divisor” (denominator and numerator). *Id.* at 590 (quotations omitted). Each Defendant “must take into account a number of factors relating not just to the contribution of a particular defendant to the harm, but also to the effect of that defendant’s waste on the environment,” as well as “other parties’ wastes at the site.” *Id.* at 591 (emphasis omitted). Each Defendant must consider “when the pollution was discharged to a site, where the pollutants are found, how the pollutants are presented in the environment, and what are the substances’ chemical and physical properties.” *Id.* Even more, each Defendant must identify a reasonable apportionment method that “support[s] a reasonable assumption that the respective harm done is proportionate to the factor chosen to approximate a party’s responsibility.” *Id.* at 595 (quotations omitted). Critically, each Defendant’s divisibility analysis must be comprehensive: they must address “the entirety of contamination” at hand, *id.* at 592, and account for “*each cause* [of the] single harm,” *Burlington*, 556 U.S. at 614 (emphasis added).¹

B. Defendants May Not Downplay Their Substantial Burden.

Defendants downplay their burden in several ways. None is persuasive.

1. *Pakootas IV*’s “substantial” burden language is not dicta.

Some Defendants have described *Pakootas IV*’s admonition of a “substantial” burden of proof as “dicta.” See Trial Tr. Day 1 at 30:5–15. That is not a fair reading of *Pakootas IV*, where the Ninth Circuit took pains to describe how a defendant asserting divisibility must prove a complicated and fact-intensive web of

¹ Accord *Pakootas IV*, 905 F.3d at 590, 593 (an apportionment analysis should consider “the amount of pollution attributable to each source” or “whatever source”); *In re Bell Petroleum Servs.*, 3 F.3d 889, 903 (5th Cir. 1993) (a defendant must put forth “sufficient evidence from which the court can determine the amount of harm caused by each defendant”).

1 requirements. 905 F.3d at 588–89, 592–96. Relatedly, the court’s characterization of
2 divisibility as a “rare case[]” was grounded in a scholarly study “counting only four
3 decisions finding divisibility out of 160 cases.” *Id.* at 588 (citing Martha L. Judy,
4 *Coming Full CERCLA*, 44 New England L. Rev. 249, 283 (2010)).

5 Other circuits have agreed with *Pakootas IV*’s holding that divisibility imposes
6 a substantial burden that is rarely met. *Pakootas IV* relied on an Eighth Circuit decision
7 observing that “proving divisibility is a very difficult proposition” because site
8 contamination is “by [its] nature . . . normally incapable of any logical, reasonable, or
9 practical division.” *United States v. Hercules, Inc.*, 247 F.3d 706, 717 (8th Cir. 2001)
10 (quotations omitted). And the Seventh Circuit observed in *Von Duprin LLC v. Major*
11 *Holdings, LLC*, 12 F.4th 751, 763 (7th Cir. 2021)—a lucid and helpful divisibility
12 decision—that “[a]s a practical matter, joint and several liability often reflects the
13 norm in complex environmental cleanup cases because most circumstances reveal
14 numerous disposers of waste over long periods of time where after-the-fact
15 identification of who contributed what and thus who caused what portion of the
16 present-day harm at issue is exceptionally difficult to ascertain with reliability.”

17 **2. An apportionment analysis is not necessarily valid just**
18 **because it follows a traditional methodology.**

19 Some Defendants or their experts have implied that as long as a party applies a
20 traditional apportionment method—“most commonly volumetric, chronological, or
21 geographic,” *Pakootas IV*, 905 F.3d at 595—their divisibility analysis is necessarily
22 valid, *see* Trial Tr. Day 1 at 34:15–35:12; Trial Tr. Day 3 (morning) at 18:21–24. That
23 is inaccurate. *Pakootas IV* held that “[w]hat is reasonable in one case may not be in
24 another, so apportionment methods ‘vary tremendously depending on the facts and
25 circumstances of each case.’” *See* 905 F.3d at 595 (quoting *Hercules*, 247 F.3d at 717).
26 Accordingly, Defendants must justify that “the factor chosen to approximate a party’s
27 responsibility”—whether it is volumetric, chronological, geographic, or something
28

1 else—“is proportionate to” their causal contribution to the contamination. *See id.*
2 (quotations omitted).

3 **3. The first step of the two-step apportionment test is not a**
4 **“basic gatekeeping” inquiry.**

5 GEI has deemphasized the first step of the two-step divisibility test in *Pakootas*
6 *IV*—whether the harm is “theoretically capable of apportionment,” *see* 905 F.3d at
7 588–89—as a mere “basic gatekeeping” or “threshold” analysis, *see* Trial Tr. Day 4
8 (afternoon) at 45:11–46:13. But courts have not treated the first step as such. Instead,
9 courts have described the first step as fact-intensive and complicated. *Pakootas IV*
10 requires a defendant to address many “details about the ‘nature’ of the harm,” *see* 905
11 F.3d at 591, and the Seventh Circuit in *Von Duprin LLC* noted that the first step
12 “depend[s] . . . on many findings of fact,” *see* 12 F.4th at 765. GEI’s attempt to have
13 the Court avoid “grappling with the [theoretical] complexity” of the first step of the
14 divisibility test clashes with the case law. *See id.*

15 **4. There are limits to estimation in the divisibility context.**

16 Defendants have embraced the notion that a divisibility analysis may be
17 “established by estimation.” *See* Trial Tr. Day 1 at 32:9–10; *see id.* at 53:8–10
18 (similar). That is an incomplete and misleading rendition of their burden. True, the
19 Ninth Circuit in *Pakootas IV* did hold that a divisibility analysis may rely on “logical
20 inferences, assumptions, and approximations” that are grounded in evidence. *See* 905
21 F.3d at 589. However, a defendant’s *ultimate* burden is to prove “a reasonable basis
22 for *determining* the contribution of each cause to a single harm.” *Id.* at 595 (quoting
23 *Burlington*, 556 U.S. at 614) (emphasis added). While some amount of reasonable
24 estimation is acceptable, a defendant may not rely on irrational or loose estimations
25 that cause the defendant to fall short of their burden to prove “definite proportion[s]”
26
27
28

1 for apportioning liability.² See *3000 E. Imperial, LLC v. Robertshaw Controls Co.*,
2 No. CV 08-3985 PA EX, 2010 WL 5464296, at *9 (C.D. Cal. Dec. 29, 2010).

3 Indeed, it is well-established that: “[I]f they are in doubt, district courts should
4 not settle on a compromise amount that they think best approximates the relative
5 responsibility of the parties.’ In such circumstances, courts lacking a reasonable basis
6 for dividing causation should avoid apportionment altogether by imposing joint and
7 several liability.” *City of W. Sacramento v. R&L Bus. Mgmt.*, No. 2:18-cv-00900-
8 WBS-EFB, 2020 WL 5545272, at *4 (E.D. Cal. Sept. 16, 2020) (quoting *Hercules*,
9 247 F.3d at 718–19); see *Burlington*, 556 U.S. at 614 (cautioning against “mak[ing]
10 an arbitrary apportionment for its own sake” (quotations omitted)).

11 **5. *Burlington* did not cast the “each cause” requirement into**
12 **doubt by violating its own holding.**

13 Trojan resists *Burlington*’s requirement for a defendant to account for “the
14 contribution of *each cause* to [the] single harm,” *Burlington*, 556 U.S. at 614, by
15 suggesting the *Burlington* Court did not follow its own holding, see ECF No. 892 at
16 6:3–16. Trojan misunderstands *Burlington*.

17 The district court in *Burlington* apportioned 9% of liability to certain railroads,
18 6% of liability to Shell, an arranger, and an 85% orphan share to B & B, a bankrupt
19 former owner-operator. See *United States v. Atchison, Topeka & Santa Fe Ry. Co.*,
20 No. CV-F-92-5068 OWW (and related cases), 2003 WL 25518047, at *85–96 (E.D.
21 Cal. July 15, 2003). The U.S. Supreme Court affirmed that apportionment on other
22

23 ² Relatedly, in an attempt to make Plaintiffs seem unreasonable, some Defendants
24 have asserted that Plaintiffs believe divisibility requires “precision” or “near
25 certainty.” See Trial Tr. Day 1 at 31:22–23, 53:10. Plaintiffs have never made such
26 an argument. See generally ECF No. 880 (Plaintiffs’ pretrial brief) (not referring to a
27 precision or exactness requirement). Instead, consistent with the case law, Plaintiffs
28 have asserted that Defendants’ burden is to show “there is a reasonable basis for
determining the contribution of each cause to [the] single harm.” *Id.* at 1:4–8
(quoting *Burlington*, 556 U.S. at 614).

1 grounds. *See Burlington*, 556 U.S. at 618–19. So, the *Burlington* Court followed its
2 own holding by accounting for 100% of the causal contributors to the contamination
3 (9% + 6% + 85% = 100%).

4 **6. *Burlington* did not invite inaccurate but “conservative”**
5 **apportionment analyses.**

6 GEI and Trojan argue that *Burlington* tolerates inaccurate apportionment
7 analyses as long as they rest on “conservative” assumptions. They insist the U.S.
8 Supreme Court approved of an inaccurate apportionment analysis that
9 “conservative[ly]” included a 50% margin of error. *See* ECF No. 892 at 7:13 (Trojan);
10 ECF No. 896 at 4 (GEI). That again misreads *Burlington*.

11 The Court in *Burlington* found that the correct apportionment method—which
12 the district court *had not* used—yielded a 9% apportionment for the railroads. *See*
13 *Burlington*, 556 U.S. at 618 (“Had the District Court limited its apportionment
14 calculations to the amount of time the Railroad parcel was in use and the percentage
15 of the facility located on that parcel, it would have assigned the Railroads 9% of the
16 response cost.”). Fortuitously, the district court had found a 9% share for the railroads
17 on different grounds: the district court had used a different method to “determine that
18 the Railroads were responsible for [] 6%,” then applied a 3% (i.e., 50% of 6%) upward
19 margin of error to “reach the same result” of 9%. *See id.* at 616–18.

20 So, the U.S. Supreme Court in *Burlington* did not endorse the district court’s
21 inaccurate analysis that had conservatively adopted a 50% margin of error. Rather, the
22 Court found “any miscalculation [by the district court] . . . harmless” because it had
23 accidentally reached the same 9% figure; the Court then effectively affirmed the
24 district court on alternative grounds. *Id.* at 618.

25 * * * *

26 Defendants bear a considerable burden of proof. They may not downplay it.
27
28

1 **III. The Court Can Readily Reject Defendants’ Incomplete and Flawed**
2 **Divisibility Approaches.**

3 Defendants have not provided a viable approach to divisibility that comports
4 with the requirements imposed by precedent or provides the Court a reasonable basis
5 to measure each contributor’s role in causing the contamination.

6 The Court received a voluminous record and heard diverse and clashing expert
7 opinions at trial. Part III of this brief reviews Defendants’ divisibility theories at a
8 broad level and provides the Court straightforward grounds to reject divisibility. These
9 grounds include that: (1) Defendants’ divisibility analyses are incomplete, violating
10 the comprehensiveness requirements set forth in *Pakootas IV* and *Burlington*; (2) NL’s
11 divisibility analysis is infected with equitable considerations that have no place in
12 apportionment; (3) Defendants do not justify their approach of slicing and dicing the
13 entirety of the contamination (a single denominator) into many different sub-harms
14 (multiple denominators) for apportionment; (4) Defendants do not prove a
15 theoretically sound or factually reasonable approach to apportionment; and (5)
16 Defendants’ arguments are better addressed at the equitable allocation phase.

17 If the Court agrees, it could reject Defendants’ divisibility defenses solely on
18 the grounds presented in this Part III. If the Court wishes to delve into the minutiae of
19 Defendants’ divisibility approaches, Part IV provides a more extensive analysis that
20 exhaustively details the shortcomings of Defendants’ theories.

21 **A. Defendants’ Divisibility Analyses Are Incomplete.**

22 Controlling precedent requires a divisibility analysis to be comprehensive in
23 two ways. A defendant must (1) consider the entirety of contamination at a site, and
24 (2) account for each cause of the contamination. Because Defendants’ incomplete
25 divisibility analyses violate both requirements, Defendants cannot carry their burden.
26
27
28

1 **1. No Defendant considers the entirety of contamination at the**
2 **Vernon Plant and in the Industrial Area.**

3 *Pakootas IV* requires any divisibility analysis to consider “the entirety of
4 contamination at a site.” *See* 905 F.3d at 592. This entirety-of-contamination
5 requirement was a core theme of *Pakootas IV*, where the Ninth Circuit “fully agree[d]
6 with the district court that ‘because [the defendant] ha[d] failed to account for *all of*
7 *the harm* at the [river] Site, it cannot prove that harm is divisible.’” *Id.* at 594
8 (emphasis added).³ The Court described *Pakootas IV* similarly in its opening remarks
9 at trial: “One thing that is important in *Pakootas* is the examination of the site as a
10 totality. So that seems to be the stepping off point. And if you can’t establish that, . . .
11 then you don’t get much further.” Trial Tr. Day 1 at 6:10–14.

12 As explained in Plaintiffs’ pretrial brief, no Defendant has followed *Pakootas*
13 *IV*’s command to consider the totality of the contamination. *See* ECF No. 880 at 16–
14 22. This contamination—as the Court concluded after the Phase II trial—encompasses
15 the Vernon Plant, its subsurface, its groundwater down to the Bellflower Aquiclude
16 (i.e., down to the Perched Aquifer, but not including the deeper Exposition Aquifer),
17 and the Industrial Area. *See* ECF No. 854 at 2.

18 **GEI.** GEI offers two divisibility analyses: a broader one by Mr. McGinnis, and
19 a narrower one by Dr. Rouhani. Mr. McGinnis wholly ignores the soil contamination
20 caused by the Vernon Plant’s airborne lead emissions that undisputedly has been
21 measured and exists in the Industrial Area.⁴ Dr. Rouhani examines only three sources
22

23 ³ *See* ECF No. 880 (Plaintiffs’ pretrial brief) at 6–7 (explaining *Pakootas IV*’s
24 entirety-of-contamination analysis in greater depth); *accord City of W. Sacramento*,
25 2020 WL 5545272, at *6 (“Absent an evaluation of the contamination as a whole,
the court cannot conclude that the harm is divisible.”).

26 ⁴ *See* Trial Tr. Day 1 at 105:16–107:1 (Mr. McGinnis’s testimony that he
27 apportioned only the contamination on hardscapes (buildings and paved surfaces),
28 and not soil, in the Industrial Area); ECF No. 895-3 (Laton Decl.) ¶¶ 31–34 (prior

1 of soil contamination limited to the North Yard area of the Vernon Plant. *See generally*
2 ECF No. 894 (Rouhani Decl.). Neither Mr. McGinnis nor Dr. Rouhani examines the
3 totality of the contamination.

4 **NL.** NL offers only the testimony of Dr. Davis.⁵ In the Industrial Area, Dr.
5 Davis offers apportionment opinions for only hardscapes (i.e., buildings and
6 pavement); subsurface contamination at two individual properties; and groundwater.
7 *See* ECF No. 889 (Davis Decl.) ¶¶ 232–54; ECF No. 889-8 (Davis Summary of
8 Apportionment Conclusions) at 4. Just like Mr. McGinnis, Dr. Davis does not offer
9 apportionment opinions for Industrial Area soil contamination.⁶

10 Also, Dr. Davis ignores any Vernon Plant soil contamination deeper than 5 feet
11 below the surface because he did not “believe it [was] necessary.” *See* Trial Tr. Day
12 3 (morning) at 75:7–11; *see also* ECF No. 889 ¶¶ 36, 88. Dr. Davis’s decision to
13 constrain his analysis is based on his speculation that Plaintiffs would never clean up
14 Vernon Plant soil contamination deeper than 5 feet. *See* Trial Tr. Day 3 (morning) at

15 _____
16 Industrial Area sampling described in exhibit PX059 detected high lead levels of
17 lead in parts of the Industrial Area with exposed soils).

18 At trial, Mr. McGinnis offered a speculative opinion that this Industrial Area
19 soil contamination might have washed, eroded, or otherwise gone away. *See* Trial
20 Tr. Day 2 (morning) at 39:18–40:3. As discussed below, Mr. McGinnis—on cross-
21 examination—admitted that his opinion was unfounded and that he was not offering
22 any opinions about Industrial Area soil contamination, thus effectively withdrawing
23 his opinion that the contamination went away. *See infra* Section IV.G; *see also* Trial
24 Tr. Day 2 (afternoon) at 26:23–27:11 (Mr. McGinnis’s testimony).

25 ⁵ The Court excluded the testimony of NL’s other expert, Paul S. Johnston. *See* ECF
26 No. 919 at 1–2.

27 ⁶ At trial, Dr. Davis initially testified that any Industrial Area soil contamination is
28 divisible because it has already been cleaned up. *See* Trial Tr. Day 3 (morning) at
60:1–6. But Dr. Davis then clarified that his opinions regarding a subsurface soil
contamination cleanup were limited to tree wells, and therefore did not address all
subsurface soil contamination. *See* Trial Tr. Day 3 (morning) at 60:7–14; *see also*
PX059 §§ 3.2 and 3.3.4 (distinguishing between lead contamination in tree wells and
subsurface soils).

1 77:9–22. However, soil contamination below 5 feet is necessarily relevant to
2 divisibility because Plaintiffs’ CERCLA cost-recovery claim focuses only on *past*
3 response actions and resulting costs,⁷ and Plaintiffs have already incurred costs to
4 sample, investigate, and evaluate soil contamination at the Vernon Plant down to
5 about 75 feet below the ground surface.⁸ Moreover, Dr. Davis’s speculation about
6 whether Plaintiffs will clean up soil deeper than 5 feet has no basis in reality. The
7 uncontroverted evidence shows that DTSC has expressly left open the possibility that
8 Vernon Plant soil contamination deeper than 5 feet will be cleaned up so that future
9 workers are not exposed to dangerous contamination during construction activities
10 that require excavation. *See* PX_3-0030 at 3, 31 (“soil removal to 5 feet below ground
11 surface” would be insufficiently protective of construction workers who might
12 perform work at the Vernon Plant in the future); *see also* Trial Tr. Day 4 (afternoon)
13 at 109:7–13 (explaining that it would be improper for the Vernon Plant to be left as a
14 polluted “graveyard” for future generations). Thus, contamination deeper than 5 feet
15 is relevant to the divisibility analysis.

16 Dr. Davis fails to consider the entirety of the contamination. His apportionment
17 analysis falls short of *Pakootas IV*.

20 ⁷ *See* ECF No. 663 at 2–3 (Plaintiffs’ Phase II motion *in limine* on this issue, relying
21 primarily on *City of Colton v. American Promotional Events, Inc.-West*, 614 F.3d
22 998, 1007–08 (9th Cir. 2010), which clarified that a CERCLA cost-recovery claim
23 focuses only on “past costs” or “liability for costs already incurred”); ECF No. 735
at 2 (Court’s order granting the motion *in limine*).

24 ⁸ *See* ECF No. 854 at 2 (finding release-causation for the Vernon Plant’s subsurface
25 down to the Bellflower Aquiclude); DX_2-0552 at 4-1 to 4-2, 4-10 to 4-11
26 (comprehensive 2016 investigation of Vernon Plant soil contamination that included
27 “deep” soil borings down to about 75 feet); ECF No. 714-7 (Phase II Ruttan Decl.)
28 ¶ 14 (explaining that Plaintiffs incurred response costs in connection with that 2016
investigation of soil contamination, which has been introduced as both PX0002 and
DX_2-0552).

1 **Clarios.** Clarios offers only the limited testimony of Dr. Robrock, who opines
2 that TCE contamination in the Vernon Plant’s subsurface is divisible from lead
3 contamination. *See* ECF No. 886 (Robrock Decl.) ¶¶ 2–3. Dr. Robrock makes no
4 attempt to consider the Vernon Plant’s surface contamination, Industrial Area
5 contamination, or other contaminants like antimony, cadmium, and sulfuric acid. *See*
6 *generally id.* She comes nowhere close to addressing the entirety of the contamination
7 or how TCE may interact or concentrate with those other contaminants.

8 **KBI, Oregon Tool, Ramcar, and Trojan⁹ (the “Other Arrangers”).** Clarios
9 aside, the remaining arranger Defendants—KBI, Oregon Tool, Ramcar, and Trojan
10 (the “Other Arrangers”)—offer opinions by Mr. Simpson and Dr. Cutler.¹⁰ Mr.
11 Simpson does not consider contamination at all. Rather, his analysis evaluates only
12 the mass of lead-bearing materials sent by the Other Arrangers to the Vernon Plant,
13 and assumes without analysis that mass can be a proxy for contamination. *See*
14 *generally* ECF No. 893 (Simpson Decl.). Mr. Simpson therefore violates the maxims
15 that “the factor chosen to approximate a party’s responsibility” must be “proportionate
16 to” “the respective harm done,” *see Pakootas IV*, 905 F.3d at 595 (quotations omitted),
17 and that a party “must take into account . . . the *effect* of that defendant’s waste on the
18 environment” at a site, not just the waste itself, *id.* at 591.

19 Dr. Cutler opines only that: (1) subsurface metals contamination at the Vernon
20 Plant stopped after June 1986, making the Vernon Plant’s subsurface contamination
21 divisible from its surface contamination; and (2) the Plant’s TCE and other volatile
22 organic compound (“VOC”) contamination is distinct from metals contamination. *See*
23 ECF No. 883 (Cutler Decl.) ¶ 3(b)–(c). Dr. Cutler does not “offer[] any opinions about
24

25 ⁹ KBI is Kinsbursky Bros. Supply, Inc.; Oregon Tool is Oregon Tool, Inc. (f/k/a
26 Blount, Inc.); Ramcar is Ramcar Batteries, Inc.; and Trojan is Trojan Battery Co.,
27 LLC.

28 ¹⁰ In addition to being sued as arrangers, Clarios and KBI are sued as transporters
that transported hazardous substances to the Vernon Plant.

1 the surface contamination,” including any opinions about the Vernon Plant’s
2 contaminated above-ground structures, except for a limited opinion that surface
3 contamination could not enter the subsurface after June 1986. *See* Trial Tr. Day 3
4 (afternoon) at 11:14–18, 13:17–22. He also does not render any opinions about the
5 extensive subsurface contamination that—in his view—occurred before June 1986.
6 He offers no opinions about sulfuric acid, one of the key contaminants of concern
7 released from the Vernon Plant.¹¹ *See id.* at 13:23–25. He offers no opinions about the
8 Industrial Area. Dr. Cutler thus ignores many aspects of the contamination.

9 No Defendant satisfies *Pakootas IV*’s basic requirement for a divisibility
10 analysis to consider “the entirety of contamination at a site.” *See* 905 F.3d at 592.

11 **2. No Defendant assesses each cause of the contamination.**

12 Under *Burlington*’s each-cause requirement, a defendant must ultimately prove
13 that “there is a reasonable basis for determining the contribution of *each cause* to [the]
14
15

16
17 ¹¹ Ramcar has argued that the Court should ignore the arranger Defendants’ sulfuric
18 acid shipments to the Vernon Plant for divisibility purposes, because sulfuric acid
19 came from battery shipments that—under the Superfund Recycling Equity Act
20 (“SREA”)—do not give rise to CERCLA liability. *See* ECF No. 881 at 10 n.4.
21 However, as discussed below in Section IV.B.1.a, a defendant asserting a divisibility
22 defense must account for the full extent of their causal contribution to the harm,
23 even if parts of that contribution do not serve as a basis for CERCLA liability. *See*
24 *Pakootas v. Teck Cominco Metals Ltd. (Pakootas II)*, 868 F. Supp. 2d 1106, 1117
25 n.13 (E.D. Wash. 2012) (“The fact, however, these emissions are irrelevant to the
26 liability determination, does not render them irrelevant to the divisibility/
27 apportionment inquiry.”). That is because divisibility focuses solely on causation
28 instead of CERCLA liability principles. *See Pakootas IV*, 905 F.3d at 588–95.
Moreover, the arranger Defendants’ sulfuric acid shipments to the Vernon Plant
were not limited to acid contained in batteries. *See* ECF No. 840 (Plaintiffs’ Phase II
post-trial brief) at 45 (explaining that Trojan sent “wood with acid” to the Vernon
Plant) (citing PX_2-0206.5). Moreover, the arranger Defendants’ SREA defense
lacks merit for myriad reasons, including for battery shipments. *See* ECF No. 840 at
36–54.

1 single harm.” *See Burlington*, 556 U.S. at 614 (quotations omitted) (emphasis
2 added).¹² No Defendant has come close to meeting this requirement.

3 **NL and Clarios.** NL and Clarios focus only on their own contributions to
4 contamination, not each cause of the harm.

5 NL—through Dr. Davis—first slices the Vernon Plant and Industrial Area’s
6 entire contamination into subsets (while ignoring key aspects of the contamination).
7 Then, Dr. Davis merely tries to minimize NL and its predecessor Morris P. Kirk &
8 Son, Inc.’s (“Kirk”) causal contributions to the contamination, rather than explain
9 each cause of the contamination. *See generally* ECF No. 887 (NL’s pretrial brief);
10 ECF No. 889 (Davis Decl.). For example, Dr. Davis “apportion[s]” to NL “*no more*
11 *than 37% of the total harm*” for Perched Aquifer groundwater contamination beneath
12 the North Yard. *See* ECF No. 889 ¶ 107 (emphasis added). Dr. Davis not only fails to
13 explain whether NL’s share should be 0%, 37%, or some figure in between, but also
14 renders no opinions about what caused the remaining 63% to 100% of the
15 contamination. *See id.* ¶¶ 99–107. Other parts of Dr. Davis’s analysis exhibit the same
16 flaw: he tries to downplay NL and Kirk’s significant role in causing the contamination,
17 while making little effort to explain what *did* cause the contamination. *See generally*
18 *id.* For example, Dr. Davis altogether ignores the role of arrangers and transporters in
19 causing contamination. *See id.* ¶ 61; Trial Tr. Day 3 (morning) at 31:1–3.

20 Similarly, Clarios—through Dr. Robrock—argues that TCE contamination at
21 the Vernon Plant is a distinct harm for which Clarios should not be held liable. *See*
22 ECF No. 888 at 1, 6 (Clarios’s pretrial brief). But Dr. Robrock does not account for

25 ¹² *Accord Pakootas IV*, 905 F.3d at 590, 593 (an apportionment analysis should
26 consider “the amount of pollution attributable to “each source” or “whatever
27 source”); *In re Bell Petroleum Servs.*, 3 F.3d at 903 (a defendant must put forth
28 “sufficient evidence from which the court can determine the amount of harm caused
by each defendant”).

1 the share of liability apportioned to any other party. *See generally* ECF No. 886.¹³ In
2 fact, she freely admitted that she is not offering a true apportionment analysis. *See*
3 Trial Tr. Day 3 (morning) at 87:1–8. Accordingly, Clarios and Dr. Robrock have not
4 addressed the causes of the contamination at hand, much less each cause of it.

5 NL’s and Clarios’s divisibility analyses are incomplete because they violate the
6 each-cause requirement. Courts reject such flawed analyses because a defendant
7 seeking apportionment cannot focus merely on “the harm caused by its wastes alone.”
8 *See City of W. Sacramento*, 2020 WL 5545272, at *5 (citing *Pakootas IV*, 905 F.3d at
9 590–91); *id.* at *7 (criticizing a defense expert for “fail[ing] to evaluate the
10 contamination beyond [the defendant’s] contribution”).

11 **GEI and the Other Arrangers (KBI, Oregon Tool, Ramcar, and Trojan).**

12 The apportionment methods proposed by GEI and the Other Arrangers excluding
13 Clarios (KBI, Oregon Tool, Ramcar, and Trojan) violate the each-cause requirement
14 for mirror-image reasons. GEI proposes a method that fails to account for the causal
15 contributions of arrangers and transporters of hazardous waste, while the Other
16 Arrangers propose a method that accounts only for the causal contributions of
17 arrangers and transporters, and assigns *zero* liability to former owners and operators.

18 GEI apportions liability not among all the entities that caused the
19 contamination, but rather based on “ownership periods” or “operational periods.” *See*
20 ECF No. 896 (GEI’s pretrial brief) at 1, 7. GEI openly acknowledges that it failed to
21 account for arrangers and transporters in its analysis. *See id.* at 2–3. GEI attempts to
22 excuse this failure by asserting that the causal contributions of arrangers and
23 transporters are indivisible from the causal contributions of owners and operators. *See*
24 *id.* (citing Restatement (Second) of Torts § 433A cmt. i (Am. L. Inst. 1965), for the
25

26 ¹³ *Accord* Trial Tr. Day 3 (morning) at 86:21–25 (“I have not been asked to do any
27 calculations, if you will, to apportion lead and TCE among all the parties. But as I
28 said in my declaration, I do have an opinion on one of the parties, which is Clarios,
and their contribution at the plant for TCE.”); *id.* at 87:9–14 (similar).

1 proposition that some harms are inherently indivisible). Even if GEI were correct that
2 contamination cannot be apportioned among different types of CERCLA covered
3 persons, the proper approach would be to impose joint and several liability among all
4 responsible parties, not to conduct an incomplete apportionment that ignores
5 contributors to the contamination. When courts “are in doubt, . . . courts lacking a
6 reasonable basis for dividing causation should avoid apportionment altogether by
7 imposing joint and several liability.” *See City of W. Sacramento*, 2020 WL 5545272,
8 at *4 (quotation omitted).¹⁴

9 Moreover, GEI is simply wrong to posit without supporting authority that a
10 divisibility analysis cannot simultaneously account for both owner-operators and
11 arrangers. For example, the district court in *Burlington* apportioned liability between
12 the railroads that owned part of the contaminated property and Shell, an arranger. *See*
13 *Atchison, Topeka & Santa Fe Ry. Co.*, 2003 WL 25518047, at *85–96. Although the
14 Ninth Circuit vacated the district court’s apportionment finding because of insufficient
15 evidence, the court of appeals stressed that apportionment was possible between
16 owners like the railroads and arrangers like Shell. *See United States v. Burlington N.*
17 *& Santa Fe Ry. Co.*, 520 F.3d 918, 942 (9th Cir. 2008) (“[C]onceptually, the
18 contamination traceable to the Railroads and Shell, with adequate information, would
19 be allocable, as would be the cost of cleaning up that contamination.”).¹⁵ And while
20 the U.S. Supreme Court reversed the district court’s finding that Shell was an arranger,
21 the Court did not cast doubt on the principle that apportionment is possible between
22

23 ¹⁴ *Accord Pakootas IV*, 905 F.3d at 590 (stressing that “any hardship due to lack of
24 evidence as to the extent of the harm should fall upon” the defendant, not the plaintiff
25 (quoting Restatement (Second) of Torts § 433B cmt. d)); *Burlington*, 556 U.S. at 614
26 (cautioning against “mak[ing] an arbitrary apportionment for its own sake”
(quotations omitted)).

27 ¹⁵ *Accord Burlington*, 556 U.S. at 607 (“On the subject of apportionment, the Court
28 of Appeals found no dispute on the question whether the harm caused by Shell and
the Railroads was capable of apportionment.” (quotations omitted)).

1 different types of CERCLA covered persons. *Cf. Burlington*, 556 U.S. at 613 (“Having
2 concluded that Shell is not liable as an arranger, we need not decide whether the Court
3 of Appeals erred in reversing the District Court’s apportionment of Shell’s liability
4 for the cost of remediation.”). Other authorities corroborate that any divisibility
5 analysis must account for each causal contributor, without regard to their covered-
6 person category.¹⁶

7 As noted, the Other Arrangers—through Mr. Simpson—propose an
8 apportionment method with a mirror-image problem: Mr. Simpson accounts for only
9 arrangers and transporters, and his analysis would assign *zero* liability to owners and
10 operators. *See generally* ECF No. 893 (Simpson Decl.); *cf. infra* Section IV.D
11 (dissecting Mr. Simpson’s methodology in greater depth).

12 In sum, each Defendant violates *Burlington*’s clear command: any divisibility
13 analysis must account for “the contribution of *each cause*.” *See* 556 U.S. at 614
14 (emphasis added); *see also In re Bell Petroleum Servs.*, 3 F.3d at 903 (requiring
15 “sufficient evidence from which the court can determine the amount of harm caused
16 by each defendant”); *O’Neil v. Picillo*, 883 F.2d 176, 178–79 (1st Cir. 1989)
17 (“[C]ourts have continued to impose joint and several liability . . . where *all of the*
18 *contributing causes* cannot fairly be traced.” (emphasis added)). The Court should
19

20
21 ¹⁶ *See United States v. Monsanto Co.*, 858 F.2d 160, 172 (4th Cir. 1988) (in a case
22 involving both owners and arrangers—or “generators”—that were responsible
23 parties, holding that “[t]he generator defendants bore the burden of establishing a
24 reasonable basis for apportioning liability among responsible parties”); *United States*
25 *v. Conservation Chem. Co.*, 628 F. Supp. 391, 401 (W.D. Mo. 1985) (“CERCLA is
26 silent as to the methodology to be applied as to the apportionment of costs among
27 liable parties. However, it is clear that whatever method is utilized it must take into
28 account a disparate group of liable parties, i.e., owners/operators, prior
owners/operators, generators and transporters.”); *see also* Judy, *Coming Full*
CERCLA, 44 New Eng. L. Rev. at 287 (in an article cited by the Ninth Circuit in
Pakootas IV, observing that a divisibility analysis must provide “a reasonable basis
for dividing harm between owners, operators[,] and generators”).

1 reject Defendants' divisibility analyses on this basis alone. It need not delve into the
2 many flaws in the defense experts' analyses.

3 **B. By Its Expert's Own Admission, NL's Divisibility Analysis**
4 **Improperly Rests on Equitable Principles.**

5 Dr. Davis's incomplete apportionment analysis, which is NL's sole basis for
6 divisibility, fails for another, independent reason: he admittedly allowed equitable
7 principles to color his assessment.

8 Dr. Davis largely used a time-based (temporal) apportionment method to
9 determine NL's causal contribution to the contamination at the Vernon Plant and in
10 the Industrial Area. *See* Trial Tr. Day 3 (morning) at 5:22–6:4. He struggled to explain
11 why. He initially admitted he didn't have enough information to determine the "actual
12 mass of contaminants" that NL contributed to the contamination. *Id.* at 6:5–14. He
13 also was unable to apportion based on volume or chemical type. *Id.* at 6:15–7:4. He
14 acknowledged that he had testified during his deposition that because he had
15 insufficient information to use any other apportionment method, he "defaulted to
16 time" as a "last port of call," even though he didn't "like it." *Id.* at 18:6–14; *see id.* at
17 18:19–24 (similar).¹⁷ On redirect, when explaining why he had used a temporal
18 method, Dr. Davis clarified that despite "the lack of specific information" on
19 important issues, he "provide[d] the apportionment . . . based on the time of
20 ownership" because "*it seemed the most equitable way to do it.*" *Id.* at 57:20–58:2.

21 In short, Dr. Davis did not just admit that he lacked the information he needed
22 to perform a proper apportionment. *See City of W. Sacramento*, 2020 WL 5545272, at
23 *9 (rejecting an expert's "use[] [of] time on the Site as a proxy for" apportionment
24

25 ¹⁷ At trial, Dr. Davis tried to retract this testimony by claiming that "last port of call"
26 means "a place to start." *See* Trial Tr. Day 3 (morning) at 18:12–13. That is not
27 credible. Dr. Davis clearly testified at his deposition that: "We defaulted to time as
28 the last port of call, if you will. I don't like it, but that is what is available." *See id.* at
18:9–11.

1 because no evidence showed that a temporal divisibility method would be
2 appropriate). He also admitted that he had selected his temporal apportionment
3 method based on equitable principles. No matter how important such principles will
4 be at the subsequent equitable allocation phase of this action, they may not be
5 considered to determine divisibility. *See Burlington*, 556 U.S. at 616 n.9 (“Equitable
6 considerations play no role in the apportionment analysis”). Dr. Davis’s reliance
7 on equitable factors makes his opinions unreliable and irrelevant to divisibility.

8 Nor was Mr. Davis’s admission that equitable considerations formed a basis of
9 his divisibility analysis a slip of the tongue. Elsewhere, Mr. Davis conflates
10 divisibility/apportionment—which rests “solely on causation” and not on “fairness-
11 based approaches,” *see United States v. Twp. of Brighton*, 153 F. 3d 307, 319 (6th Cir.
12 1998)—with equitable allocation. Specifically, Dr. Davis’s direct testimony
13 declaration touts *Asarco LLC v. Atl. Richfield Co.*, 353 F. Supp. 3d 916 (D. Mont.
14 2018), as a case where a court “accepted” his “apportionment analysis.” *See* ECF No.
15 889 (Davis Decl.) ¶ 4. But Dr. Davis’s analysis in *Asarco LLC* pertained to equitable
16 allocation, not apportionment.¹⁸ Put simply, Dr. Davis mistakes his *own* prior
17 equitable allocation opinion for a divisibility/apportionment opinion. This error
18 underscores that Dr. Davis does not understand the difference between apportionment
19 and equitable allocation, or the principle that equitable considerations play no role in
20 a divisibility analysis.

21 **C. Defendants’ Slice-and-Dice Approach that Focuses on Sub-Harms**
22 **Is Inappropriate.**

23 At trial, the Court focused on having the parties and defense experts clearly
24 identify the “denominator” of their divisibility analyses. *E.g.*, Trial Tr. Day 1 at 12:10–
25

26 ¹⁸ *See Asarco LLC*, 353 F. Supp. 3d at 943 (“Based on his analysis, Davis proposes
27 the following three *allocation strategies* for the Court’s consideration”
28 (emphasis added)); *id.* at 944 (based partly on Dr. Davis’s analysis, determining a
party’s “equitable share of the response costs”).

12. No defense expert relies on the totality of the contamination at the Vernon Plant and in the Industrial Area as their single denominator, then measures each party’s causal contribution to that contamination. Instead, each Defendant addresses only sub-harms—thin slivers of the totality of the contamination—and examines causal contributions to those sub-harms. In other words, Defendants provide multiple (and inconsistent) denominators in their competing divisibility analyses. Defendants have justified this approach by reference to Section 433A(1)(a) of the *Restatement (Second) of Torts*, which advises that apportionment may be available “where [] there are distinct harms” that make up a larger harm. In such circumstances, according to the *Restatement*, the harm may be split into distinct sub-harms for apportionment purposes.

Neither the U.S. Supreme Court nor the Ninth Circuit has expressly endorsed this approach. *See* ECF No. 880 (Plaintiffs’ pretrial brief) at 7–8. Instead, both *Burlington* and *Pakootas IV* used only the apportionment method in *Restatement* Section 433A(1)(b), which focuses on “determining the contribution of each cause to a single harm.” *See Burlington*, 556 U.S. at 614 (describing Section 433A as the “starting point” for a divisibility analysis, but proceeding to use only Section 433A(1)(b) (quotations omitted)); *Pakootas IV*, 905 F.3d at 588–89 (similar).¹⁹

In any event, if the Court were to follow non-precedential decisions recognizing that a CERCLA apportionment analysis may treat a contaminated site as comprised of multiple, distinct sub-harms, no Defendant has met their burden to prove that the

¹⁹ Defendants are mistaken to suggest that the U.S. Supreme Court in *Burlington* held that a distinct-harms approach under Section 433A(1)(a) is viable. *E.g.*, ECF No. 885 (KBI’s pretrial brief) at 2. Although the *Burlington* Court cited Section 433A as a whole, it applied only the principles in Section 433A(1)(b) and did not hold that the entire harm at a contaminated CERCLA site can be split into separate and distinct sub-harms under Section 433A(1)(a). *See Burlington*, 556 U.S. 599.

1 entirety of contamination at the site—the Vernon Plant and the adjoining Industrial
2 Area—should be split into separate sub-harms.

3 Courts have imposed stringent requirements on a defendant who seeks
4 apportionment by arguing that a contaminated site should be considered as comprised
5 of multiple sub-harms. Such a defendant must meet a “substantial burden” “requiring
6 concrete and specific evidence of causation of separate and distinct harms to the
7 environment.” *See New York v. Next Millennium Realty, LLC*, 160 F. Supp. 3d 485,
8 513 (E.D.N.Y. 2016) (quotations omitted). A defendant may not meet its “burden of
9 demonstrating” the existence of “distinct harm[s]” by showing merely that the harm
10 “can loosely be divided into [multiple] general [geographic] areas.” *See Bd. of Cnty.*
11 *Comm’rs of Cnty. of La Plata v. Brown Grp. Retail, Inc. (La Plata)*, 768 F. Supp. 2d
12 1092, 1117 (D. Colo. 2011). For example, it is not enough that the Vernon Plant has
13 often been described as comprised of three yards. *See Atchison, Topeka & Santa Fe*
14 *Ry. Co.*, 2003 WL 25518047, at *56 (“CERCLA liability makes no distinctions
15 between lines of property ownership. . . . [R]eleases and migration of hazardous
16 substances do not respect man-made ownership lines.”).²⁰

17 Instead, the case law demonstrates that to split contamination into distinct sub-
18 harms, a defendant must prove that two areas of contamination are non-contiguous
19 and non-commingled. For example, in *Hercules*, the Eighth Circuit observed that a
20 defendant should prove that “a site consists of ‘non-contiguous’ areas of soil
21 contamination, or separate and distinct subterranean ‘plumes’ of groundwater
22 contamination.” 247 F.3d at 717–18 (citation omitted).²¹ Other courts have held that

24 ²⁰ This holding was not disturbed in the appeals that followed, including the U.S.
25 Supreme Court’s *Burlington* decision.

26 ²¹ *Accord Akzo Coatings, Inc. v. Aigner Corp.*, 881 F. Supp. 1202, 1211 (N.D. Ind.
27 1994) (“Given that each area of contamination is separate and, more importantly,
28 non-contiguous, the court finds that the site is divisible based upon the geographic
location of the harm.”), *decision clarified on reconsideration*, 909 F. Supp. 1154

1 “[a]lthough commingled contamination is not synonymous with indivisible harm, it
2 precludes apportionment based on distinct harms.” *La Plata*, 768 F. Supp. 2d at 1117
3 (citation omitted). Some courts have even declined to find “separate harm[s]” based
4 on the mere “potential for commingling or migration of hazardous substances”
5 between two locations. *See Arizona v. Motorola, Inc.*, 805 F. Supp. 749, 752–53 (D.
6 Ariz. 1992) (contamination in two cells of a landfill were not distinct harms because
7 there was a risk that contamination might migrate between them). Courts have
8 required non-contiguity and non-commingling because a harm “must be separate
9 and independent” to be distinct. *See Hatco Corp. v. W.R. Grace & Co.-Conn.*, 836 F.
10 Supp. 1049, 1087 (D.N.J. 1993).²²

11 Here, no Defendant has made a serious effort to prove that the Court should
12 treat the Vernon Plant and the Industrial Area—which experience contiguous and
13 commingled contamination—as comprised of multiple, distinct sub-harms. And
14 Defendants cannot show and have not shown distinct sub-harms because the
15 contamination at hand is commingled and contiguous, making this precisely the sort
16 of site that is not susceptible of being treated as comprising distinct sub-harms. *See*
17 Trial Tr. Day 1 at 54:5–6 (statement by GEI’s counsel that: “Is there commingling
18 here? Strictly defined, yes.”); *id.* at 107:22–25 (similar statement by GEI’s expert Mr.
19 McGinnis).

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21
22 (N.D. Ind. 1995), *aff’d*, 197 F.3d 302 (7th Cir. 1999).

23 ²² During closing arguments, NL argued that *Hatco* is similar to the circumstances
24 here. *See* Trial Tr. Day 4 (afternoon) at 9:10–10:4. It is not. The court there found
25 only a small, easternmost section of an 80-acre contaminated site to comprise a
26 distinct harm. *Hatco*, 836 F. Supp. at 1074. That was because it was undisputed that
27 one defendant “alone utilized” that section—an area of “exclusive use.” *Id.* Here, NL
28 and GEI’s predecessor Gould Inc. (“Gould”) used all three contiguous yards of the
Vernon Plant, caused commingled and pervasive contamination throughout the
Plant, and emitted air emissions that contaminated the adjoining Industrial Area.

1 For example, because the Vernon Plant’s contamination is horizontally,
2 vertically, and chemically commingled across all three yards, it is impossible to
3 delineate where one area of contamination ends and another begins. *See* ECF No. 895-
4 3 (Laton Decl.) ¶¶ 39–40, 43–45. Hazardous substance releases from industrial
5 activities contaminated above-ground structures, disposal pits, bare soil, and paved
6 surfaces²³; this contamination moved downward into the subsurface where it
7 commingled and further migrated.²⁴ To the extent contamination entered the Perched
8 Aquifer, it likely dispersed laterally.²⁵ All of these releases occurred over nearly nine
9 decades of Plant operations.²⁶ Worse, the commingled contamination has functioned
10 synergistically, with sulfuric acid mobilizing lead and other heavy metals. *See* Trial
11 Tr. Day 1 at 109:5–7 (GEI’s expert Mr. McGinnis); ECF No. 741-1 (Phase II Laton
12 Decl.) ¶ 80.

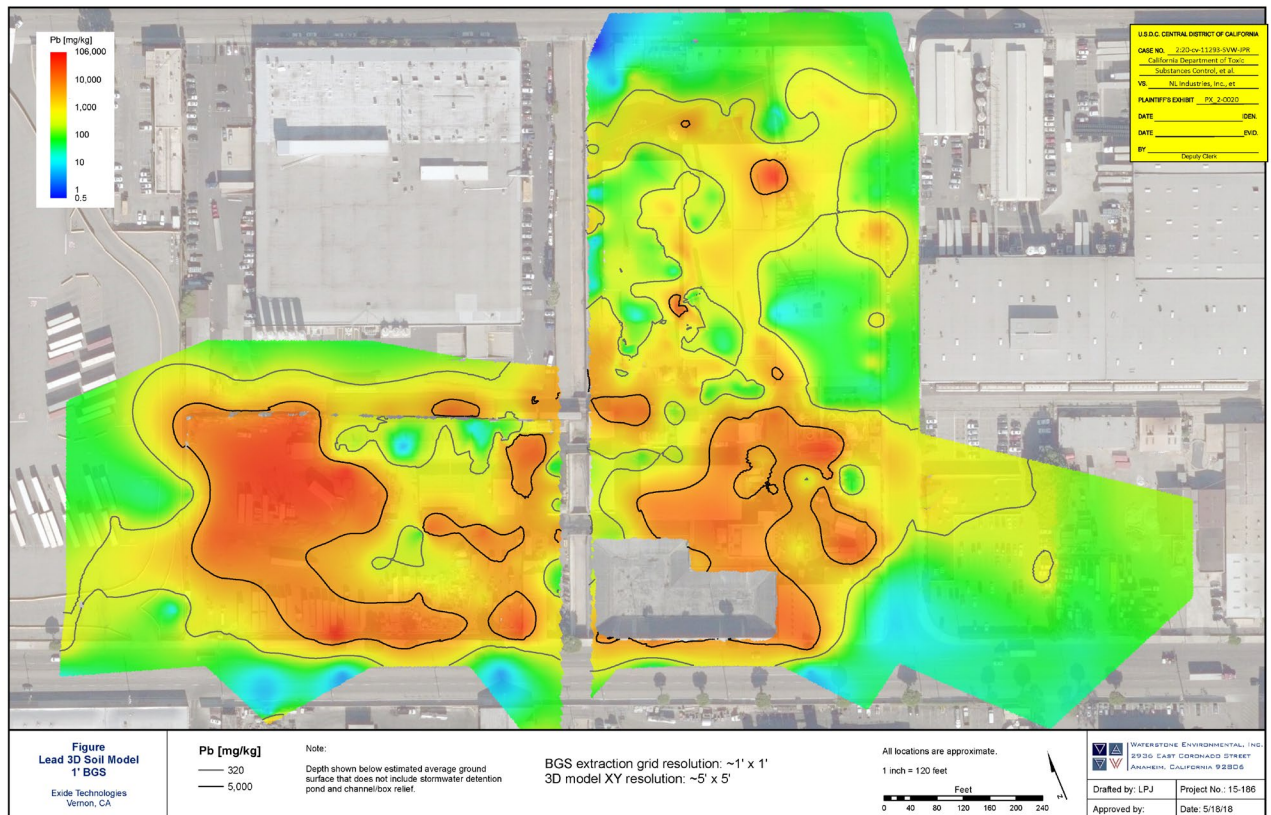
13 In many respects, the Vernon Plant is similar to the site in *City of West*
14 *Sacramento*, where “repeated releases over a period of years” at a “small” site were
15 “likely to form ‘one big blob’ in the soil.” *See* 2020 WL 5545272, at *9. For example,
16 recall the following map of lead contamination one foot below the ground surface at
17 the Vernon Plant, which shows contiguous and unbroken lead contamination:

22 ²³ *See* ECF No. 741-1 (Phase II Laton Decl.) ¶¶ 50–58 & App’x B; *see generally*
23 ECF No. 714-6 (Phase II Quivik Decl.).

24 ²⁴ *See* ECF No. 741-1 ¶¶ 65–90; 100–13.

25 ²⁵ *See* Trial Tr. Day 2 (morning) at 71:5–6 (GEI’s expert Mr. McGinnis’s testimony
26 that sulfuric acid can “move laterally at depth” in the Perched Aquifer); ECF No.
27 741-1 ¶ 90 (Dr. Laton’s testimony about movement of water contamination within
the Perched Zone).

28 ²⁶ *See generally* ECF No. 741-1; ECF No. 714-6.



See PX2-0020.1.

As Plaintiffs' expert Dr. W. Richard Laton put it, lead contamination is "pervasive," and virtually every part of the Vernon Plant has been affected. See ECF No. 895-3 ¶ 39. "The lead contamination is contiguous and not geographically separated." *Id.* Lead contamination has migrated or been mixed downward into deeper depths at the Vernon Plant. See PX_2-0021 (lead contamination at 2 feet below ground surface); PX_2-0022 (5 feet); PX_2-0023 (10 feet). And other hazardous heavy metals are commingled with lead. See ECF No. 741-2 at 10–12, 14–15 (map).

In addition, sulfuric acid—which also does not respect property boundaries—is commingled with lead. This commingling has mobilized lead and accelerated its migration throughout the Plant. See ECF No. 741-1 (Phase II Laton Decl.) ¶ 67. The following figure prepared by GEI's expert Mr. McGinnis, which depicts the highly acidic (soil pH < 4) subsurface areas at the Vernon Plant and in the adjoining Industrial Area, illustrates this reality:



View of Vernon Plant from above Bandini Boulevard. Orange-red volume below West Yard and area across border of South and North Yards contains soil with pH less than 4.

See DX_3-0549 at 10.

The contamination at the Vernon Plant and in the Industrial Area is contiguous and commingled. It does not respect boundaries. It is therefore not susceptible of being split into separate sub-harms. *See La Plata*, 768 F. Supp. 2d at 1117 (commingling “precludes apportionment based on distinct harms”).

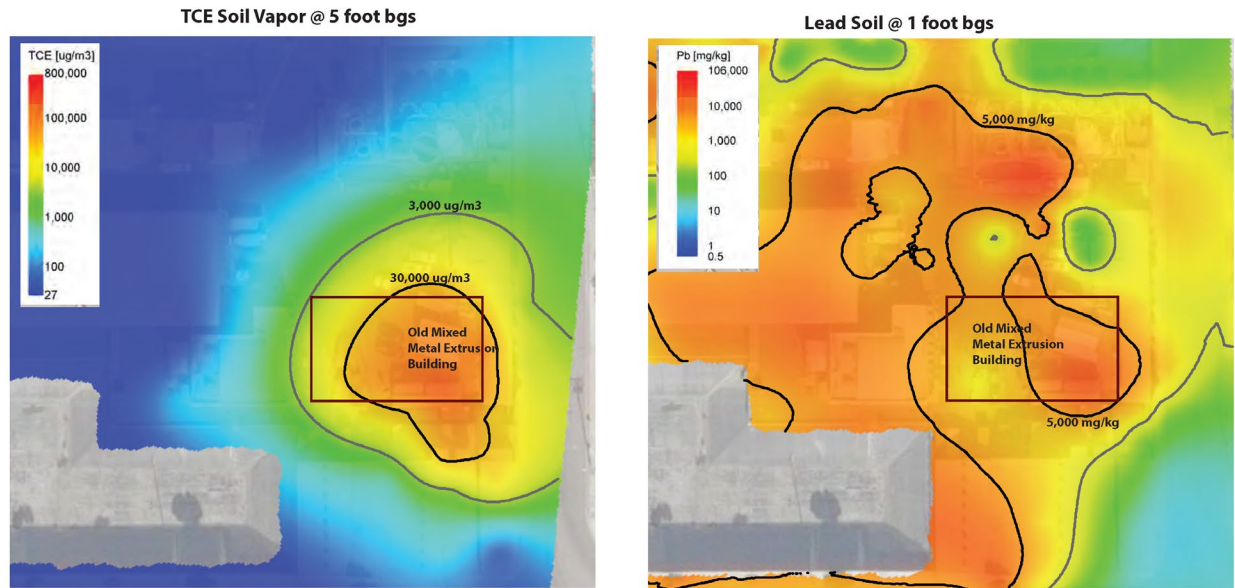
Other factors only complicate the picture, and Defendants—who bear the burden of proof—have failed to account for them in their scant arguments for distinct sub-harms. Perhaps most significantly, contaminants including lead and sulfuric acid were moved by plant operators, blurring the lines between any distinctions that may be drawn between different geographic areas. For example, NL and its predecessor Kirk dumped slag, sulfuric acid, and other hazardous waste generated principally by the South Yard smelter in the West Yard. *See* ECF No. 714-6 (Phase II Quivik Decl.) ¶¶ 53–60, 65. Similarly, in the early 1980s, GEI’s predecessor Gould moved piles of

1 hazardous waste to the West Yard while constructing the new smelter in the North
2 Yard that later replaced the South Yard smelter. *See infra* Section IV.B.2. The Vernon
3 Plant’s leaky stormwater system moved contaminants throughout the Plant and from
4 the surface to the subsurface. *See* ECF No. 841-1 ¶¶ 28, 137; ECF No. 895-3 ¶ 62. To
5 borrow the Seventh Circuit’s words, the Vernon Plant “functioned as a dynamic,
6 unitary operation in which materials were moved from location to location,” making
7 divisibility “difficult to prove.” *See United States v. Cap. Tax Corp.*, 545 F.3d 525,
8 535 (7th Cir. 2008) (quotations omitted). Defendants also have not accounted for the
9 Vernon Plant’s well-documented fugitive emissions that created dusty conditions and
10 likely redistributed hazardous substances discharged in one yard onto another.²⁷
11 Defendants did not dispute at the Phase I trial that these fugitive emissions, alongside
12 stack emissions, polluted the Industrial Area. *See* ECF No. 482 at 1, 63 (Phase I
13 Decision and Verdict).

14 Instead of grappling with these complexities, Defendants offer only paltry
15 arguments for distinct harms. Clarios and the Other Arrangers (KBI, Oregon Tool,
16 Ramcar, and Trojan) advance a meager argument that TCE and metals contamination
17 in the Vernon Plant’s subsurface are distinct from each other. *See* ECF Nos. 881, 884,
18 885, 888, 892 (Arranger’ pretrial briefs). As discussed below, the arranger
19 Defendants’ arguments are unpersuasive because TCE and metals contamination are
20 commingled in the subsurface, causally connected through related industrial
21 processes, and potentially subject to remediation using shared methods. *See infra*

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24 ²⁷ *See* Trial Tr. Day 1 at 165:12–21 (GEI’s expert Mr. McGinnis’s acknowledgement
25 that “fugitive dust blowing all over the site” “probably” redistributed pollution); *see*
26 ECF No. 714-6 (Phase II Quivik Decl.) ¶ 50 (examining PX_2-0436, which
27 catalogues dusty conditions observed in 1975 while NL owned and operated the
28 Plant). Fugitive emissions are emissions that have not been emitted from a stack.
They may include, for example, particulates that are emitted to the air when plant
activities kick up dust on surfaces.

Section IV.D. Consider the following figure, which demonstrates how TCE and metals contamination exist in the same part of the South Yard subsurface:



Source: Modified from Waterstone Environmental, 2018 (Exhibit PX-2-0020 and Exhibit PX-2-0024)

earthforensics, inc.

Figure 1: TCE and Lead Contamination
DTSC vs. NL Industries et. al.

See PX_3-0026.48.

The Other Arrangers except Clarios also contend based on Dr. Cutler’s testimony that because releases to the subsurface stopped after June 1986, surface contamination is distinct from subsurface contamination.²⁸ But no court has found distinct harms on such a basis, and—in any event—the Court has already rejected Dr. Cutler’s theory that the surface became impervious to contamination in 1986. *See* ECF No. 854 at 2 (“Defendants did not meet their burden in showing that all releases to the subsurface stopped after 1986.”).

Meanwhile, NL summarily declares without evidentiary support that certain sub-harms are distinct from each other. *See* ECF No. 887 at 2–5 (NL’s pretrial brief);

²⁸ *See* ECF No. 881 (Ramcar’s pretrial brief) at 6–8; ECF No. 884 (Oregon Tool’s pretrial brief) at 5–10; ECF No. 885 (KBI’s pretrial brief) at 3–6; ECF No. 892 (Trojan’s pretrial brief) at 3–4.

1 *see generally* ECF No. 889 (Davis Decl.). But NL does not grapple with the
2 commingled and contiguous nature of the contamination, or the movement of
3 pollutants across different areas during nine decades of activities at the Vernon Plant.
4 In an attempt to buttress its distinct sub-harms argument, NL emphasizes that it did
5 not construct some of the above-ground structures at the Vernon Plant, including all
6 of the buildings in the North Yard. *See* ECF No. 887 at 2–4.²⁹ However, *buildings* are
7 not necessarily the same thing as *contamination*, which is the relevant harm for
8 divisibility purposes. And even if buildings could be deemed to be a harm, NL has not
9 proved that the Vernon Plant’s buildings are distinct from other contamination. For
10 example, the Court heard ample testimony that buildings and the subsurface were
11 contaminated through common industrial processes and have been contiguously
12 contaminated, especially given that cracks in floors, sumps, and foundations allowed
13 contamination to migrate from buildings into the subsurface.³⁰ So, building
14 contamination and subsurface contamination are contiguous. And it is common sense
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16 ²⁹ Many of the remaining, contaminated structures in the South Yard and West Yard
17 date from NL and Kirk’s era, *see* ECF No. 889-8 at 3–4 (Dr. Davis’s list of
18 buildings).

19 ³⁰ ECF No. 741-1 (Phase II Laton Decl.) ¶ 137; ECF No. 895-3 (Laton Decl.) ¶¶ 29–
20 30, 63–66; *see also* Trial Tr. Day 1 at 120:5–7, 122:17–21 (Mr. McGinnis’s
21 testimony that cracks could allow lead and sulfuric acid to migrate downward); *id.* at
22 170:1–172:12 (Mr. McGinnis’s testimony that extreme vibrations that emanated
23 from a hammermill when Gould first started up the new North Yard smelter, *see*
24 DX_2-077 at 7 (“extreme vibrations . . . causing structural damage to the floor and
25 structure”), could have caused cracks in North Yard buildings); Trial Tr. Day 3
26 (morning) at 47:20–48:1 (Dr. Davis’s testimony that the high lead concentrations
27 were observed beneath the North Yard’s raw material processing system (RMPS)
28 building, and that evidence indicated the presence of cracking in the foundation of
that building); Trial Tr. Day 3 (afternoon) at 16:14–17:4 (Dr. Cutler’s
acknowledgment that the 1990 RCRA Facility Investigation, DX_3-0527 at 4-1,
reported cracks in floors at the Vernon Plant in 1990); Trial Tr. Day 4 (morning) at
10:19–11:9, 50:24–55:3 (Dr. Laton’s testimony that contamination went through
buildings and into the subsurface).

1 that much of the Vernon Plant’s subsurface contamination—including contamination
2 traceable to NL—cannot be addressed without removing the structures that lie atop it,
3 regardless of whether the structures were built by NL or someone else. *See* Trial Tr.
4 Day Trial Tr. Day 2 (afternoon) at 28:15–19 (Mr. McGinnis’s testimony that any built
5 structures in the North Yard would have to be removed before soil contamination is
6 removed). Indeed, courts have recognized in the CERCLA context that it is often
7 necessary and reasonable to remove above-ground structures—contaminated or not—
8 to address underlying soil contamination.³¹

9 Therefore, the surface and subsurface contamination are contiguous and tightly
10 intertwined. Plainly, Defendants have not met its burden to prove the existence of
11 distinct sub-harms at the Vernon Plant and in the Industrial Area.³²

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18 ³¹ *See Bancamerica Commercial Corp. v. Trinity Indus., Inc.*, 900 F. Supp. 1427,
19 1468 (D. Kan. 1995), *aff’d in part, rev’d in part, and remanded on different grounds*
20 *sub nom. Bancamerica Commercial Corp. v. Mosher Steel of Kan., Inc.*, 100 F.3d
792 (10th Cir. 1996), *mandate reformed*, 103 F.3d 80 (10th Cir. 1996).

21 ³² In its post-trial briefing, NL may quote trial testimony by GEI’s expert Mr.
22 McGinnis out of context to argue that North Yard structures are a distinct sub-harm.
23 NL repeatedly asked Mr. McGinnis whether the North Yard structures are “distinct.”
24 *See* Trial Tr. Day 1 at 182:20–184:3. Mr. McGinnis repeatedly stated he was
25 confused by NL’s questions. *E.g., id.* at 183:4–5 (“I am not sure if I understand your
26 question.”). As NL persisted and Mr. McGinnis remained confused, the Court
27 advised NL’s counsel, “You don’t need to ask him for a legal conclusion [about
28 distinct sub-harms], just the facts.” *Id.* at 184:2–3. Then, Mr. McGinnis gave an
ambiguous answer that arguably could be interpreted as a statement that the North
Yard’s above-ground structures are a distinct harm. *Id.* at 184:4. Evaluated in
context, any statement by Mr. McGinnis about distinct sub-harms was a product of
NL’s confusing questions and therefore has no probative value.

1 **D. Defendants Fail to Prove that the Harm Is Theoretically Capable of**
2 **Apportionment, or that the Record Provides a Reasonable Basis to**
3 **Apportion Liability.**

4 Even if Defendants’ approach of slicing and dicing the contamination into many
5 purportedly distinct sub-harms was acceptable, Defendants have not offered (1) a
6 theoretically sound approach or (2) a reasonable basis in the evidence to apportion
7 liability according to the contributions of each party that caused it. *See Pakootas IV*,
8 905 F.3d at 588–89, 592.

9 The bottom line is that many uncertainties preclude Defendants from proving
10 apportionment. These uncertainties are not just about how the experts draw different
11 conclusions from a shared set of facts. Rather, the experts disagree in good faith about
12 what the facts actually are. This is—of course—precisely the sort of uncertainty that
13 inheres when reconstructing nine decades of Vernon Plant operations. Where such
14 uncertainties exist, the burden rests on a defendant who asserts a divisibility defense
15 to overcome them. As “[t]he Restatement makes clear . . . ‘any hardship due to lack
16 of evidence as to the extent of the harm should fall upon’” the CERCLA defendant,
17 not the plaintiff. *Pakootas IV*, 905 F.3d at 590 (citing Restatement (Second) of Torts
18 § 433B cmt. d); *see also O’Neil*, 883 F.2d at 179 (“[C]ourts have continued to impose
19 joint and several liability on a regular basis, reasoning that where all of the
20 contributing causes cannot fairly be traced, Congress intended for those proven at least
21 partially culpable to bear the cost of the uncertainty.”).

22 GEI and NL promote the idea that earlier litigation involving the Vernon Plant
23 means the Court has more available information than for a typical contaminated site.
24 *E.g.*, Trial Tr. Day 1 at 33:1–34:2. But GEI and NL overstate the helpfulness of that
25 historical record, which is incomplete and was not developed with this litigation in
26 mind. For example, the parties here do not have copies of entire deposition transcripts
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28

1 from the earlier litigation,³³ nearly all deposition exhibits, and key documents
2 referenced in expert reports such as TCE purchase records.³⁴ And the available
3 portions of the historical record are littered with ambiguities and inconsistencies.
4 Consider this excerpt from a 1996 expert report prepared in the prior litigation, which
5 described witnesses' divergent accounts of when and how the West Yard was paved:

6 Based on employee recollection, the West Yard was not paved until after about 1969 (John
7 Carpenter, 7/1/96 interview [no asphalt in 1969]; Karl Smith, 7/1/96 interview [no pavement
8 in 1968]). Other employees recall the West Yard to be partially paved (Juan Plata, 9/30/96
9 interview, p. 2). Most employees interviewed either recalled pavement in the West Yard to be
10 very damaged or do not recall it being present at all due to poor conditions (Marty Groh,
11 10/21/96 interview [some asphalt on east side]; John Carpenter, 7/1/96 interview [very bad,
12 potholes] and 10/1/96 interview, p. 2 [craters]; Phil Estrada, 10/21/96 interview, p. 2 [hilly];
13 William Walker, 7/1/96 interview [essentially unpaved]; George Evans, 7/1/96 interview
14 [paved and acid just soaked in]; Felix Grunwald, 7/1/96 interview [asphalt was poor]; Stuth
15 deposition, p. 85 [mixture of decayed, decomposed asphalt patches]; Charles Tims, 7/2/96
16 interview [it was a real mess when it rained]; James Taylor, 7/2/96 interview [does not
17 remember pavement in West Yard]; and Armando Cortez, et. al., 7/2/96 group interview
18 [group said there was no asphalt in West Yard]).

15 See DX_2-1534 at 4-1.

16 Such ambiguities or inconsistencies are unresolvable today because witnesses
17 are no longer available. Indeed, the Court heard hours of trial testimony about
18 irreducible uncertainties. They include:

- 19 • How much of NL's contaminated soil was removed in different parts of the
20 North Yard in the 1980s.

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23 ³³ See Trial Tr. Day 2 (afternoon) at 20:5–9 (Mr. McGinnis's testimony that the
24 deposition transcript of Bill McKusky has not been available to any party or their
25 experts); DX_2-1534 at 4-2, 4-9, 4-16, 4-26, 4-39 to 4-40, fourth page of tbl.4
26 (expert report from the earlier litigation, repeatedly relying on Mr. McKusky's
27 deposition testimony to understand the Vernon Plant's history, its condition at
28 various times, and changes to the Plant).

³⁴ See DX_2-1534 at 4-18 & tbl.6 (expert report from the earlier litigation, relying
on TCE purchase records that are no longer available).

- 1 • When the West Yard and other areas of the Vernon Plant were paved, and the
2 condition of the pavement—including the presence of cracks—at various points
3 in time.
- 4 • How long and how extensively Gould continued NL’s shoddy waste handling
5 practices—such as storing leaking batteries on permeable surfaces—after
6 Gould took over the Vernon Plant.
- 7 • When the defective stormwater system that Gould installed in the North Yard
8 started leaking, and how much of the resulting contamination was cleaned.
- 9 • When and how much waste KBI, Ramcar, and especially Trojan shipped to the
10 Vernon Plant without using hazardous waste manifests.

11 Because of these uncertainties, the Court has observed pervasive disagreements
12 among the experts, many of them irreconcilable. This is best illustrated by the North
13 Yard’s subsurface contamination. Defendants cannot, and do not, dispute that the
14 contamination exists. But GEI asserts that virtually all of the contamination came from
15 NL or Kirk. *See* ECF No. 897 (McGinnis Decl.) ¶ 268 (apportioning 1.1% to GEI, and
16 98.9% to NL/Kirk). NL, meanwhile, asserts that none of the contamination came from
17 it or Kirk. *See* ECF No. 887 at 12–13; ECF No. 889 (Davis Decl.) ¶¶ 83. Neither GEI
18 nor NL asserts that *all* of the contamination was caused after Gould stopped owning
19 and operating the Vernon Plant. *See* ECF No. 897 ¶ 268; ECF No. 889 ¶¶ 76–98.
20 GEI’s and NL’s positions are irreconcilable. (By contrast, Plaintiffs’ expert Dr. Laton
21 testified that the evidence indicates that NL/Kirk, Gould, and the “arranger”
22 defendants each contributed to the North Yard’s subsurface contamination at different
23 times, but there is no basis to determine how much came from each. *See* ECF No. 895-
24 3 (Laton Decl.) ¶¶ 55–70, 79–83, 90, 101–13.)

25 To bypass these uncertainties, Defendants’ experts—as discussed—do not
26 focus on the entirety of the harm. They apply a slice-and-dice approach and then make
27 arguments about causal responsibility for purportedly distinct sub-harms. *See supra*
28 Section III.C. And the defense experts also resort to oversimplifications that violate

1 the *Burlington* Court’s command to provide “a *reasonable* basis for *determining* the
2 contribution of each cause to [the] single harm.” *See* 556 U.S. at 614 (emphasis
3 added). The expert opinions provided by Dr. Davis (who uses time as a flawed proxy
4 for an owner-operator’s contribution to the contamination) and Mr. Simpson (who
5 uses the mass of lead shipped by an arranger as a flawed proxy for their contribution
6 to the contamination) exemplify these oversimplifications.

7 **Dr. Davis.** As discussed above and further discussed below, *see supra* Section
8 III.B; *infra* Section IV.A.2, Dr. Davis admitted that he chose a temporal
9 apportionment method as a last resort because of missing and conflicting evidence.
10 However, this method—which places equal weight on each year despite ample
11 evidence that contamination rates changed over time—bears no relationship to reality
12 and is thus an inappropriate basis for apportionment. *See Pakootas IV*, 905 F.3d at 595
13 (when choosing a basis for apportionment, a defendant must prove “that the respective
14 harm done is proportionate to the factor chosen to approximate a party’s
15 responsibility” (quotations omitted)).

16 For example, Dr. Davis assumes that the Vernon Plant’s owners caused
17 contamination in the West Yard at equal rates in each year of the Plant’s operations,³⁵
18 even though NL and Kirk caused most of the contamination there by operating
19 massive slag and acid pits.³⁶ NL likewise fails to account for the fact that the Plant
20 became much cleaner after Gould constructed the new North Yard smelter and began
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25 ³⁵ *See* ECF No. 889 (Davis Decl.) ¶¶ 215–22; *see also* ECF No. 895-3 (Laton Decl.)
26 ¶¶ 84–86 (critiquing Dr. Davis’s analysis).

27 ³⁶ *See* ECF No. 889 (Davis Decl.) ¶ 200 (admitting that Kirk used the slag and acid
28 pits); ECF No. 714-6 (Phase II Quivik Decl.) ¶¶ 53–57, 65 (detailing NL and Kirk’s
use of the slag and acid pits).

1 operating it in 1982 or 1983.³⁷ And Dr. Davis engages in even more oversimplification
2 by ignoring the arrangers and transporters altogether in his apportionment analysis.³⁸

3 **Mr. Simpson.** Mr. Simpson focuses only on how much lead the Other
4 Arrangers (KBI, Oregon Tool, Ramcar, and Trojan) excluding Clarios sent to the
5 Vernon Plant, compared to the total amount of lead processed at the Plant during its
6 entire operational period from the 1920s to the 2010s. *See generally* ECF No. 893
7 (Simpson Decl.). In so doing, Mr. Simpson entirely ignores that some of the Other
8 Arrangers sent lead-acid batteries containing sulfuric acid—a key contaminant of
9 concern—to the Plant. *See infra* Section IV.E.1. And Mr. Simpson simply assumes
10 without any analysis that the *mass of lead* shipped to the Plant can serve as a reliable
11 proxy for estimating the Other Arrangers’ causal contributions to the resulting
12 *contamination*. *See* Trial Tr. Day 3 (afternoon) at 49:5–8. But this assumption is
13 unreasonable. For example, Mr. Simpson assumes that a ton of lead-bearing materials
14 shipped to the Vernon Plant in 1950 should be given equal weight as a ton shipped in
15 2010. *See* ECF No. 895-3 (Laton Decl.) ¶ 9 (explaining that Mr. Simpson’s
16 assumption is flawed because “it assumes that the greatest amount of contamination
17 occurred during the period when environmental regulation was the most stringent”).
18 Also, Mr. Simpson ignores owners and operators entirely, effectively assigning them
19 *zero* percent of the liability. *See* Simpson Depo. at 78:6–79:8. The oversimplified
20 analysis proffered by Mr. Simpson, who did not seriously contest at trial that his
21 apportionment methodology was inaccurate, is a symptom of the fact that the
22 incomplete record provides an insufficient basis for apportionment. *See* Trial Tr. Day
23 3 (afternoon) at 50:3–51:11.

24
25 ³⁷ *See* ECF No. 889 ¶¶ 215–22 (Dr. Davis’s analysis); ECF No. 895-4 (Quivik Decl.)
26 ¶¶ 15–20 (explaining that the new North Yard smelter was built for environmental
compliance reasons to reduce emissions).

27 ³⁸ *See* ECF No. 889 ¶ 61 (Dr. Davis’s open admission that he does not account for
28 arrangers and transporters).

1 Defendants' inability to develop a theoretically defensible and reasonable basis
2 for divisibility is unsurprising. As Plaintiffs noted in their pretrial brief, the Vernon
3 Plant and the Industrial Area are precisely the sort of complex contaminated site where
4 divisibility is difficult verging on impossible. *See* ECF No. 880 at 11–14. The site
5 does not fall within the fewer than three percent of cases where divisibility is proved.
6 *See Pakootas IV*, 905 F.3d at 588 (“only four decisions finding divisibility out of 160
7 cases” (citing *Judy, Coming Full CERCLA*, 44 New Eng. L. Rev. at 283)).

8 **E. Defendants' Flawed Divisibility Arguments Should Be**
9 **Reconsidered Later in Equitable Allocation.**

10 Defendants' divisibility analyses fail for the reasons set forth above. However,
11 a non-divisibility finding is not the end of the road for Defendants' arguments about
12 their causal contributions to the harm. At the equitable allocation stage, the Court will
13 have “broad discretion” to adjudge the parties' relative fault “using such equitable
14 factors as the court determines are appropriate,” instead of under the rigid
15 apportionment framework that governs this phase. *See TDY Holdings, LLC v. United*
16 *States*, 885 F.3d 1142, 1147, 1149 (9th Cir. 2018) (quotations omitted). Courts
17 including the Ninth Circuit have observed that unsuccessful divisibility arguments
18 may be reasserted during equitable allocation. *See Pakootas IV*, 905 F.3d at 596 (an
19 unsuccessful divisibility proponent can instead make equitable allocation arguments
20 under CERCLA Section 113(f)); *PCS Nitrogen Inc. v. Ashley II of Charleston LLC*,
21 714 F.3d 161, 182 (4th Cir. 2013) (“any inequity arising from the unavailability of
22 apportionment” was “mitigate[d]” by the availability of equitable allocation).

23 During equitable allocation, the Court may consider whether certain parties
24 are—as an equitable matter—more culpable than others. For example, the Court could
25 consider the possibility that former owners and operators are more blameworthy than
26 arrangers or transporters. The Court could consider parties' varying abilities to pay
27 based on evidence such as financial records and percipient witness testimony. *See*
28 *Seattle Times Co. v. LeatherCare, Inc.*, 337 F. Supp. 3d 999, 1072 nn.72–73 (W.D.

1 Wash. 2018) (describing the oft-used equitable factors known as the “Gore factors”
2 and the “Torres categories,” the latter of which include ability to pay). The Court will
3 be able to equitably allocate liability based on a wide range of factors, not just under
4 the rigid and technically demanding divisibility framework that governs this phase.

5 **F. Divisibility Is Different from Release Causation, Which the Court**
6 **Has Already Comprehensively Addressed.**

7 On the final day of trial, the Court inquired about the relationship between the
8 divisibility issues at play in this Phase III trial, and the release-causation issues that
9 the Court already comprehensively addressed through the Phase I and Phase II trials.
10 *See* Trial Tr. Day 4 (afternoon) at 82:14–19. The answer is that Defendants’
11 divisibility defense has little or no overlap with the *prima facie* release-causation
12 element of Plaintiff’s CERCLA Section 107(a) cost-recovery claim, which the Court
13 has already resolved.

14 Release causation concerns the “causal link” between releases or threatened
15 releases of hazardous substances from a CERCLA “facility” and a plaintiff’s response
16 costs. *See* ECF No. 482 (Phase I Verdict) at 5 (quoting *Carson Harbor Vill., Ltd. v.*
17 *Unocal Corp.*, 287 F. Supp. 2d 1118, 1186 (C.D. Cal. 2003)). Notably, release
18 causation does not involve an “actual contamination” requirement. *Id.* at 13–15. And
19 a CERCLA plaintiff need not prove “defendant-specific” release-causation—“that a
20 *specific* defendant’s waste caused Plaintiffs to incur response costs.” *Id.* at 6
21 (collecting authorities). The Court comprehensively resolved release causation at the
22 Phase I and Phase II trials, where Defendants conceded release-causation except in
23 the Residential Areas that lie beyond the Industrial Area, and the deeper Exposition
24 Aquifer underneath the Vernon Plant. *See id.* at 1 (noting Defendants’ concession of
25 release-causation in the Industrial Area); ECF No. 840 at 8–11 (explaining that the
26 controversy over groundwater contamination at the Phase II trial was limited to the
27 Exposition Aquifer, not the shallower Perched Aquifer).

1 By contrast, divisibility—in loose terms—focuses on determining how much of
2 the contamination was caused by each contributor. *See generally Pakootas IV*, 905
3 F.3d 565. Unlike release causation, divisibility does not focus on the link between a
4 CERCLA facility’s releases or threatened releases, and a plaintiff’s response costs.
5 Unlike release causation, which imposes burdens on plaintiffs, divisibility requires
6 *defendants* to specifically link the contamination with “each cause.” *Burlington*, 556
7 U.S. at 614 (quotations omitted). The divisibility evidence prepared for the Phase III
8 trial is therefore not targeted at proving or disproving release-causation, which was
9 the primary subject of the Phase I trial and a key subject of the Phase II trial.

10 **IV. Each Defendant’s Divisibility Analysis Has Significant Shortcomings that**
11 **Underestimate Their Contribution to the Harm.**

12 Part III of this brief reviewed Defendants’ divisibility theories at a broad level
13 and provided the Court straightforward grounds to reject divisibility. This Part IV
14 delves into Defendants’ divisibility theories at a more granular level, providing the
15 Court further grounds to hold that Defendants have not met their substantial burden
16 on apportionment.

17 **A. NL’s Expert Dr. Davis Ignored Key Aspects of the Contamination**
18 **and Conceded that His Time-Based Apportionment Was Flawed.**

19 As discussed, NL’s sole expert, Dr. Davis, offers an incomplete apportionment
20 analysis. Dr. Davis starts by slicing and dicing the contamination at the Vernon Plant
21 and in the Industrial Area into sub-harms, without justifying why those sub-harms
22 should be regarded as distinct and separate. *See* ECF No. 889 (Davis Decl.) ¶¶ 39–52.
23 Then, Dr. Davis attempts a highly incomplete apportionment approach for each of
24 those sub-harms. *See generally id.*

25 Dr. Davis’s analysis is littered with flaws. As discussed, he does not address the
26 totality of the contamination. *See supra* Section III.A.1. He does not address each
27 cause of the contamination; rather, he focuses almost exclusively on minimizing NL
28 and Kirk’s contribution to it. *See supra* Section III.A.2. Because he did not have

1 enough information to perform a more accurate apportionment analysis, he admittedly
2 resorts to a flawed time-based apportionment method that assumes that time is a
3 reasonable proxy for measuring NL and Kirk's contribution to the contamination, *see*
4 *supra* Section III.B, even though NL and Kirk's ownership period was the most
5 polluting period of the Vernon Plant's history, *see* ECF No. 895-4 (Quivik Decl.)
6 ¶¶ 15–20 (Vernon Plant modernization in the early 1980s reduced pollution rates).

7 **1. Dr. Davis does not address the entire contamination, account**
8 **for each cause of it, or justify his slice-and-dice approach.**

9 As discussed, Dr. Davis does not address the totality of the contamination at
10 hand. *See supra* Section III.A.1. Nor does he address each cause of the contamination.
11 *See supra* Section III.A.2. Rather, he focuses only on assigning percentages for NL's
12 causal responsibility, without accounting for other contributors' roles in causing
13 contamination. He therefore falls short of the basic requirements set forth in *Pakootas*
14 *IV* and *Burlington*.

15 Further, Dr. Davis does not justify his slice-and-dice approach wherein he
16 assumes that contamination in different areas should be considered as distinct and
17 separate sub-harms for apportionment purposes. *See supra* Section III.C. The
18 inappropriateness of Dr. Davis's (and other experts') slice-and-dice approach is
19 perhaps most starkly underscored by NL and its predecessor Kirk's own conduct. NL
20 and Kirk—like other Vernon Plant owners and operators—moved and commingled
21 contamination in and across the Vernon Plant's three yards and the Industrial Area.
22 For example:

23 **Battery Breaking.** NL and Kirk broke apart lead-acid batteries in the North,
24 West, and South Yards, then fed lead-bearing materials into the South Yard smelter.
25 *See* ECF No. 714-6 (Phase II Quivik Decl.) ¶¶ 61–75. These breaking activities were
26 often conducted on bare ground, where thousands of gallons of sulfuric battery acid
27 were allowed to permeate into the soil per week. *See e.g., id.* ¶ 64.

1 **West Yard Slag Disposal.** Starting sometime before 1935, Kirk generated
2 smelter waste at the South Yard smelter, then dumped it in the West Yard. *See id.* ¶ 54
3 (citing PX_3-0017 (1935 letter by Kirk to NL that described Kirk’s use of the West
4 Yard as a dumping ground)). Kirk’s employees would break slag apart using
5 sledgehammers in the West Yard; the portions with high lead content would be
6 returned to the South Yard smelter, whereas other portions would be buried in the
7 West Yard. *Id.* ¶ 53.

8 **West Yard Acid Dumping.** NL and Kirk dumped as much as 10,000 gallons
9 per day of battery acid—much of it generated in other yards—in a West Yard acid
10 pit. *Id.* ¶ 65 (citing DX_2-1534 at 2-6, 4-21, 5-3).

11 **Subsurface Blob of Acidic Conditions that Spans Yards and Crosses the**
12 **Plant Boundary into the Industrial Area.** Releases of acid, including releases by
13 NL and Kirk, have caused contiguous areas of subsurface acid contamination that do
14 not respect any boundaries between different “yards,” or the boundaries between the
15 Vernon Plant and the Industrial Area. *See* DX_3-0549 at 10.

16 **Emissions from NL and Kirk’s Operations Contaminated the Industrial**
17 **Area.** NL and Kirk emitted lead and other hazardous substances to the air,
18 undisputedly contaminating the Industrial Area. *See* ECF No. 482 (Phase I Decision
19 and Verdict) at 1, 63.

20 **Fugitive Emissions Likely Moved and Blended Hazardous Substances.** NL
21 and Kirk caused fugitive emissions from many sources—including industrial truck
22 traffic, the hauling of waste materials to the furnaces, sweeping in smelter buildings,
23 uncontrolled fumes, and battery breaking—that caused well-documented, dusty
24 conditions at the Vernon Plant. *See* ECF No. 714-6 (Phase II Quivik Decl.) ¶ 50
25 (examining PX_2-0436, which catalogues dusty conditions observed in 1975 while
26 NL owned and operated the Plant). NL and other Defendants, who bear the burden of
27 proof on divisibility, have not accounted for the likelihood that these fugitive
28

emissions would have redistributed and commingled hazardous substances across the Vernon Plant's yards and into the Industrial Area.³⁹

Costs Are Not a Harm, Much Less a Distinct Harm. In many portions of his expert report, Dr. Davis departs from the well-established principle that the "harm" for apportionment purposes consists of "*contamination*." *See Pakootas IV*, 905 F.3d at 592 (emphasis added). Instead of apportioning liability for contamination, Dr. Davis attempts to apportion *costs*. *See generally* ECF No. 889 (Davis Decl.).

This leads to nonsensical results. For example, Dr. Davis summarily asserts that NL should bear 0% of the costs of air monitoring in the North Yard; 0% of those costs in the West Yard; and 0% of those costs in the South Yard. *See* ECF No. 889 ¶¶ 62–64, 108–12, 170–73. But the costs of air monitoring at the Vernon Plant are not a harm; the underlying harm is the pervasive contamination—caused in substantial part by NL and Kirk—that has required air monitoring to ensure that hazardous substances do not escape into surrounding communities. Nor may the costs of air monitoring be apportioned on a yard-by-yard basis. The ambient air quality monitors at the Vernon Plant are designed to detect contamination that may travel downwind. *See* PX009.00005. So, if an airborne release occurs from the North Yard while the wind is blowing south, an air monitor near the South Yard may detect that contamination. Dr. Davis's apportionment of air monitoring costs is out of step with *Pakootas IV* and is demonstrably illogical.

Buildings Are Not Equivalent to Contamination; Buildings May Have to Be Removed to Remedy NL's Contamination. Dr. Davis also spills ink asserting that NL and Kirk did not build any of the buildings presently in the North Yard, and that only a subset of buildings in the South Yard and West Yard date to the NL and Kirk eras. *See* ECF No. 889 ¶¶ 65–75, 113–33, 174–90; *see also* ECF No. 889-8 at 2–4 (Dr. Davis's list of buildings). To reiterate: the Court's task here is to apportion

³⁹ *See supra* n.27 (compiling evidence of such dusty conditions).

liability for *contamination*, which is not the same thing as apportioning liability for *buildings*. Cf. Trial Tr. Day 1 at 52:24–53:1 (GEI’s similar argument that “buildings of course are not contamination . . . [t]he harm is the contamination”). And even if the Court were to reinterpret Dr. Davis’s analysis as addressing building contamination instead of buildings themselves, building contamination is not a distinct harm from subsurface contamination. *See supra* Section III.C. Building contamination and other contamination at the Vernon Plant are contiguous and hopelessly entangled.

These basic failures warrant disregarding Dr. Davis’s opinions.

2. Dr. Davis’s time-based apportionment method is obviously flawed.

To the extent Dr. Davis performs anything resembling an apportionment analysis for certain, purportedly distinct sub-harms, he attempts a time-based (chronological or temporal) apportionment. But Dr. Davis’s apportionment analysis is manifestly flawed, and the Court should not rely on it.

Dr. Davis proposes a time-based apportionment method for the top 5 feet of soils in the North Yard, North Yard groundwater, South Yard buildings, South Yard subsurface, South Yard soil gas, South Yard groundwater, West Yard buildings, West Yard subsurface, and West Yard groundwater. *See* ECF No 889 (Davis Decl.) ¶¶ 89–98, 106–07, 121, 133, 153–60, 163, 168, 179–80, 190, 197, 215–22, 231. He assumes without evidence that contamination in each of these areas accreted at a constant rate over the Vernon Plant’s many decades of operations, even though the evidence shows that pollution rates varied dramatically with time. Cf. *3000 E. Imperial, LLC*, 2010 WL 5464296, at *9–10 (a time-based apportionment is proper only when a plant’s operations and pollution rates “remained fairly constant each year” (citing *Burlington*, 556 U.S. at 604–06)); *La Plata*, 768 F. Supp. 2d at 1118–19 (rejecting a time-based apportionment where there was insufficient evidence to show that plant operations and pollution rates were consistent over time). In addition, instead of providing fixed percentages for NL’s shares of liability, Dr. Davis purports to assign *maximum*

1 percentage liabilities for NL in these areas, leaving extremely large margins of error.
2 *E.g.*, ECF No. 889 ¶¶ 97–98, 107, 121, 163, 168, 180, 222, 231 (assigning “no more
3 than” certain percentages).

4 As discussed, *see supra* Section III.B, Dr. Davis struggled to explain at trial
5 why he had used a temporal apportionment method. When pressed, Dr. Davis admitted
6 he chose such a method because he had insufficient data to use any other method. *See*
7 Trial Tr. Day 3 (morning) at 6:5–7:4. As he put it when he was deposed, Dr. Davis
8 “defaulted to time” as a “last port of call,” even though he didn’t “like it.” *Id.* at 18:6–
9 14. His choice to apportion based on time was also shaped by his intuition that a
10 temporal apportionment was “*the most equitable way to do it.*” *Id.* at 57:20–58:2
11 (emphasis added).

12 Two examples neatly illustrate the irrationality of Dr. Davis’s temporal
13 approach. First, Dr. Davis attempts to apportion liability for the West Yard’s
14 subsurface soil contamination by using time as the sole proxy for NL and Kirk’s causal
15 contributions. He assumes that Kirk’s operations in the West Yard started on January
16 1, 1946, and that West Yard operations ceased on March 31, 2014. *See* ECF No. 889
17 ¶¶ 215–16. Because NL and Kirk owned and operated the Vernon Plant for 48% of
18 that period, Dr. Davis estimates that NL is liable for “no more than” 48% of the West
19 Yard’s subsurface soil contamination. *Id.* ¶¶ 220–22. He does not specify where in
20 this range NL’s liability might lie (i.e., whether NL’s liability is 0%, 48%, or
21 somewhere in between).

22 Dr. Davis’s reasoning exhibits significant flaws. To begin with, NL’s own
23 documents produced in this litigation state that Kirk’s operations in the West Yard
24 started in 1935, not 1946. A 1935 letter from Kirk to NL indicates that Kirk was
25 already “dumping [its] refuse on” property “to the west of [its] property”—the West
26 Yard. *See* PX_3-0017. So, Dr. Davis’s numerator and denominator are off by more
27 than a decade. Indeed, Dr. Davis conceded at trial that he should have relied upon the
28 1935 start date. *See* Trial Tr. Day 3 (morning) at 22:19–23:1, 25:21–24.

Moreover, Dr. Davis has no basis to assume that his time-based arithmetic properly measures NL and Kirk's causal contribution to West Yard subsurface contamination. It is undisputed that the massive volumes of dumping in the West Yard's slag pit and acid pit occurred solely under Kirk's and NL's watch. *See* ECF No. 889 (Davis Decl.) ¶ 200 (admitting that Kirk used the slag and acid pits); ECF No. 714-6 (Phase II Quivik Decl.) ¶¶ 53–57, 65 (detailing Kirk's use of the pits).



See ECF No. 897 (McGinnis Decl.) at 31 fig. 3-21 (1947 aerial photograph of the West Yard pit, with label added by Mr. McGinnis).

There is no evidence that subsequent owners and operators of the Vernon Plant similarly engaged in large-scale dumping in the West Yard. Dr. Davis's temporal arithmetic is therefore "belied by evidence concerning [NL's] operations and the nature of the contamination at the [s]ite." *See City of W. Sacramento*, 2020 WL 5545272, at *9. The actual evidence establishes that Dr. Davis's oversimplistic apportionment vastly understates NL and Kirk's role in causing West Yard subsurface contamination.

Second, Dr. Davis attempts to use a time-based method to apportion NL's share of response costs for any soil vapor extraction system that might be installed in the future to remediate TCE soil gas contamination in the South Yard. *See* ECF No. 889

¶¶ 162–63. Dr. Davis’s opinion is fraught from the start because a soil vapor extraction system is not a *harm*, and because Dr. Davis is not qualified to speculate about the potential future response actions DTSC might take to address human health risks at the Vernon Plant, which are irrelevant to divisibility in any event. *See* ECF No. 870 (Plaintiffs’ motion *in limine* on this subject); ECF No. 919 at 1–2 (granting the motion).

Moreover, even if Dr. Davis’s opinion about soil vapor extraction were reinterpreted as addressing South Yard soil gas contamination, his apportionment method would have no basis in reality. Dr. Davis assumes that because NL and Kirk owned the Vernon Plant for 63% of its operational life from the 1920s to the 2010s, NL’s share of responsibility for South Yard TCE contamination is 63%. *See* ECF No. 889 ¶¶ 154–59, 163. However, even though the parties have disputed the exact start and end dates of TCE discharges at the Vernon Plant, it is undisputed that TCE use and releases occurred predominantly near the South Yard mixed metal extrusion building during NL and Kirk’s ownership and operation of the Vernon Plant, and that both the metals extrusion work and associated TCE use were phased out sometime shortly after Gould purchased the Vernon Plant from NL in 1979. *See* ECF No. 895-3 (Laton Decl.) ¶¶ 27–30 (explaining the conflicting evidence regarding TCE use); Telles Depo. at 19:12–22. Therefore, Dr. Davis’s arithmetic—which assumes that TCE was released into the environment at a constant rate from the 1920s to the 2010s—bears no relationship to reality.

Dr. Davis’s temporal apportionment arithmetic is fatally flawed. He does not show that there is “a relationship” between the apportionment method he has proposed “and the amount of harm that is attributable to [NL].” *See 3000 E. Imperial, LLC*, 2010 WL 5464296, at *9 (collecting citations regarding this requirement). The obvious frailty of Dr. Davis’s opinions underscores that instead of performing a rigorous apportionment analysis, he performed an arbitrary one for his client’s sake.

1 For this reason and others identified in this brief, the Court should disregard all of Dr.
2 Davis's opinions as unreliable and unworthy of consideration.

3 **B. GEI's Divisibility Analysis Is Immensely Flawed.**

4 **1. GEI ignores key time periods when it contributed to**
5 **contamination.**

6 To prove divisibility, GEI must define the extent of the contamination and its
7 predecessor Gould's causal contribution to it (along with the contributions of the other
8 Defendants). *See Pakootas IV*, 905 F.3d at 590–91 (a defendant "[i]s required to
9 produce evidence showing divisibility of the entire harm caused by [its] wastes
10 combined with all other [site] pollution—not just the harm from sources of [its wastes]
11 alone"); *City of W. Sacramento*, 2020 WL 5545272, at *4 (similar).

12 But here, GEI's accounting of Gould's causal contribution is incomplete. GEI
13 assumes that Gould's involvement with the Vernon Plant was limited to the period
14 from January 1979, when Gould purchased the Plant from NL, to January 1983, when
15 Gould entered a contract to transfer ownership of the Plant to its then-subsidiary GNB
16 Batteries Inc. ("GNB").⁴⁰ GEI's apportionment analysis improperly ignores three key
17 additional time periods when Gould was involved with the Plant and contributed to
18 contamination caused by it.

19 **a. First time period: Gould's pre-1979 shipments of waste**
20 **to the Vernon Plant**

21 GEI fails to account for Gould's substantial shipments of hazardous waste to
22 the Vernon Plant before purchasing it from NL in January 1979. The evidence proves
23 that starting by at least 1972 and continuing through the 1970s, Gould shipped large
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25
26
27 ⁴⁰ *See* Trial Tr. Day 1 at 36:3–19, 37:4–18 (arguments by GEI's counsel); *see*
28 *generally* ECF No. 897 (McGinnis Decl.) (assuming Gould's involvement was
limited to this period).

1 amounts of lead and sulfuric acid-bearing materials to the Vernon Plant.⁴¹ But GEI
2 fails to account for any of these shipments in its apportionment analysis. *See* ECF No.
3 896 (GEI’s pretrial brief) at 7; Trial Tr. Day 1 at 36:3–8, 37:14–15.

4 GEI contends Gould’s pre-1979 shipments to the Vernon Plant are “entirely
5 irrelevant” and “have no bearing on the divisibility analysis” because Plaintiffs sued
6 GEI only as a former owner or operator under CERCLA, not as an arranger. Trial Tr.
7 Day 1 at 36:8–17, 37:1–3.⁴² GEI’s argument clashes with the divisibility case law.
8 Divisibility is rooted in common-law tort causation principles, not in CERCLA
9 liability principles. *See Burlington*, 556 U.S. at 613–14; *United States v. ConAgra*
10 *Grocery Prods. Co.*, 4 F. Supp. 3d 243, 264 (D. Me. 2014) (“Apportionment is not a
11 liability question.”). Accordingly, the divisibility analysis focuses solely on different
12 persons’ causal contributions to the harm, not on a statutory analysis of CERCLA
13 liability. *See Hercules*, 247 F.3d at 717 (“Evidence of divisibility will focus on
14 determining the amount of harm caused by the defendant.”). Neither the U.S. Supreme
15 Court nor the Ninth Circuit has limited the divisibility analysis to the conduct that
16 gives rise to a defendant’s CERCLA liability. Both have stressed that a defendant’s
17 apportionment analysis must account for “each cause” of the harm, not just the causes
18

19
20 ⁴¹ *See, e.g.*, NL-DX_3-006 at 10–14 (1972 agreement between Gould and NL for
21 Gould to “ship at least 12,000 net tons per year [] of plant scrap and scrap whole []
22 batteries . . . to NL’s smelting plants,” including its Los Angeles plant); *id.* at 16, 38
23 (similar agreement for 1977, showing 1,800 tons to be delivered by Gould to the
24 Vernon Plant); *id.* at 1, 7 (1976 document listing Gould as one of NL’s “Major
25 Battery Customers” and describing NL’s “arrangement with Gould [a]s a conversion
26 program of their batteries and plant scrap into antimonial lead with provisions for
softening of hard lead”); *id.* at 40–67 (various 1972 and 1973 invoices reflecting
“conversion” and other charges to Gould from Kirk and certain Gould shipments to
the Vernon Plant); *see also* NL-DX_3-008 (authenticating exhibits in DX_3-006).

27 ⁴² *See* ECF No. 679 at 3 ¶ 3 (GEI stipulating to its predecessor Gould’s covered-
28 person status as a former owner or operator); ECF No. 854 at 1 (order finding
Plaintiffs made a *prima facie* case of liability against Gould).

1 that give rise to covered-person status. *See Pakootas IV*, 905 F.3d at 595 (quoting
2 *Burlington*, 556 U.S. at 614).

3 These principles are illustrated by the *Pakootas II* district court’s apportionment
4 that the Ninth Circuit affirmed in *Pakootas IV*. The district court held that the fact that
5 a defendant’s pollution-causing activities “are irrelevant to the liability
6 determination[] does not render them irrelevant to the divisibility/apportionment
7 inquiry.” *Pakootas II*, 868 F. Supp. 2d at 1117 n.13. Even if a plaintiff does not rely
8 on some aspect of a defendant’s conduct “as a basis for liability,” the defendant “is
9 obligated to account for the full extent of the harm [at] the [] Site, including whatever
10 harm was contributed by its own [] emissions” or activities, to prove a divisibility
11 defense. *Id.* That comports with the principle that “[t]he divisibility of harm inquiry is
12 guided by principles of causation *alone*.” *See Coeur D’Alene Tribe v. Asarco Inc.*, 280
13 F. Supp. 2d 1094, 1120 (D. Idaho 2003) (emphasis added), *modified on other grounds*,
14 471 F. Supp. 2d 1063 (D. Idaho 2005).

15 The frailty of GEI’s argument is underscored by the fact that allowing GEI to
16 ignore Gould’s pre-ownership shipments to the Vernon Plant would amount to a form
17 of special treatment. If Clarios and the Other Arrangers are required to account for
18 their shipments to the Vernon Plant in their apportionment analyses, it would be
19 irrational to allow GEI to ignore Gould’s pre-ownership shipments. Moreover, GEI is
20 wrong to place weight on the fact that Plaintiffs did not sue GEI on an arranger theory
21 of liability for Gould’s shipments to the Plant. After all, Gould’s status as a former
22 owner or operator was sufficient to establish CERCLA’s “covered-person” element
23 and subject GEI to the full brunt of joint and several liability.

24 Accordingly, GEI cannot simply ignore Gould’s extensive pre-ownership
25 shipments of lead-bearing materials to the Vernon Plant for divisibility purposes.
26
27
28

b. Second time period: Gould's continued ownership of the Vernon Plant into late 1983

GEI's proposed divisibility framework also underestimates the duration of Gould's ownership period. The parties agree that Gould purchased the Vernon Plant from NL on January 31, 1979. *E.g.*, ECF No. 897 (McGinnis Decl.) ¶ 107. GEI contends Gould's ownership period ceased when it contracted to sell the Plant to its subsidiary GNB on January 1, 1983. *See* Trial Tr. Day 1 at 36:3–8, 37:8–15. However, Gould's ownership period continued *at minimum* until it executed the deed to transfer the Plant to GNB on October 26, 1983. *See* DX_2-028.

Because CERCLA does not meaningfully define who qualifies as an “owner,” the Ninth Circuit instructs courts to look to the common-law definition of ownership in the relevant state. *City of L.A. v. San Pedro Boat Works*, 635 F.3d 440, 448 (9th Cir. 2011) (citing *Long Beach Unified Sch. Dist. v. Dorothy B. Godwin Cal. Living Tr.*, 32 F.3d 1364, 1368 (9th Cir. 1994)). Courts in California agree that the titleholder of real property is the owner for CERCLA purposes.⁴³ Importantly, courts have found that ownership status under CERCLA does not automatically end when a party contracts to sell real property, but rather continues at least until the seller executes the deed conveying property to the buyer. *See Ameripride Servs., Inc. v. Valley Indus. Serv., Inc.*, No. CIV. S-00-113 LKK/JFM, 2007 WL 656850, at *5–7 (E.D. Cal. Feb. 28, 2007) (holding that, under California law, a party's ownership for CERCLA purposes did not begin when it “signed the purchase agreement” but when it obtained the executed deed).

⁴³ *See, e.g., San Pedro Boat Works*, 635 F.3d at 448, 451–52 (explaining that, under California law, a “passive title owner of real property” is an owner under CERCLA (emphasis omitted)); *Castlerock Est., Inc. v. Est. of Markham*, 871 F. Supp. 360, 364 (N.D. Cal. 1994) (“Under CERCLA, ownership liability attaches to a party who holds title to the property that comprises the facility.”); *Lincoln Props., Ltd. v. Higgins*, 823 F. Supp. 1528, 1533–34 (E.D. Cal. 1992) (describing ownership of fee title to real property as a means of demonstrating ownership status under CERCLA).

1 Here, Gould’s ownership of the Vernon Plant did not end when it contracted
2 with GNB to sell the Plant in January 1983. Instead, its ownership period continued
3 until *at least* October 26, 1983—the day it executed a deed transferring title to GNB.
4 *See* DX_2-028. GEI’s failure to account for Gould’s contribution to the contamination
5 between January and October 1983 is another glaring flaw in GEI’s divisibility
6 analysis.

7 **c. Third time period: Gould’s control over the Vernon**
8 **Plant extending into at least March 1984**

9 GEI also fails to account for evidence that, after Gould sold the Vernon Plant
10 to its subsidiary GNB in 1983, Gould continued to cause contamination until at least
11 March 1984 by exercising significant control over GNB, the Vernon Plant, and
12 operations there.⁴⁴ To reiterate, GEI bears the burden of proof on divisibility and
13 therefore must measure its *full* causal contribution to the contamination.

14 The U.S. Supreme Court explained in *United States v. Bestfoods* that “a
15 corporate parent that actively participated in, and exercised control over, the
16 operations of [a] facility itself may be held directly liable in its own right as an operator
17 of the facility.” 524 U.S. 51, 55 (1998). This does not require piercing the corporate
18 veil between the parent and subsidiary, but does require an analysis of the parent’s
19 relationship to the facility and its polluting activities. *Id.* at 65–67. To be an operator,
20 the parent must “manage, direct, or conduct [a facility’s] operations specifically
21 related to pollution, that is, operations having to do with the leakage or disposal of
22 hazardous waste, or decisions about compliance with environmental regulations.” *Id.*
23 at 66–67. Such liability “may be inferred from the totality of the circumstances; it need
24 not be proven by direct evidence.” *United States v. Sterling Centrecorp Inc.* (*Sterling*

25
26
27 ⁴⁴ On or about March 13, 1984, GNB formally separated from Gould. *See* Hattula
28 Depo. 19:11–20:6; ECF No. 896 (GEI’s pretrial brief) at 7 n.6 (giving a date of
March 31, 1984).

1 *Centrecorp II*), 977 F.3d 750, 757 (9th Cir. 2020). As relevant here, a parent can be
2 directly liable as an operator when, for example, the parent maintains control over
3 environmental responses at a polluting facility. *See id.* at 757–58.⁴⁵

4 Here, GEI does not account for evidence that, after transferring title to GNB,
5 Gould continued to “participate[] in, and exercise[] control over, the operations of the”
6 Vernon Plant, including those “related to pollution.” *Bestfoods*, 524 U.S. at 55, 66–
7 67. For example, a January 1984 letter from a Gould executive to NL stated that
8 “Gould Inc. and its subsidiary, GNB Batteries Inc., have been continuing to develop
9 the final plans for the rainwater retention pond for the Vernon facility.” Hattula Depo.
10 182:18–21, 180:14–182:23; PX_2-0075.2–3. The letter describes what Gould and
11 GNB believed was the optimal placement for the pond, based on “our Engineering
12 Department[’s]” evaluations. PX_2-0075.2. Gould further noted that “soils which are
13 contaminated with lead or other toxic materials . . . will need to be disposed of at a
14 hazardous waste disposal site in accordance with the [applicable] legal requirements.”
15 *Id.* This letter supplemented two prior letters from the same Gould executive to NL,
16 sent on October 24 and November 18, 1983, wherein Gould and GNB similarly and
17 jointly addressed soil lead contamination, hazardous waste disposal, and stormwater
18 management issues at the Vernon Plant. *See* PX_2-0067.2–3; PX_2-0068. These
19 letters plainly show that Gould was not simply reporting on the actions of its
20 subsidiary but rather was itself directly involved in the Vernon Plant’s “operations
21 having to do with the leakage or disposal of hazardous waste, or decisions about
22 compliance with environmental regulations.” *Bestfoods*, 524 U.S. at 66–67.

23
24
25 ⁴⁵ *Cf. Browning-Ferris Indus. of Ill., Inc. v. Ter Maat*, No. 92 C 20259, 2000 WL
26 1716330, at *2 (N.D. Ill. Nov. 8, 2000) (an individual officer/director of a
27 corporation was found directly liable as an operator given his “direct[] involve[ment]
28 in pollution control measures” at the site and because letters regarding “pollution
and clean-up at the site” were addressed to both him and the corporation), *aff’d*, 11
F. App’x 626 (7th Cir. 2001).

1 In addition to controlling environmental decisions and thereby causing
2 contamination, the record reflects that Gould continued to exercise more generalized
3 control over GNB after selling the Plant to its subsidiary. GEI's corporate designee
4 testified that Gould and GNB shared executives, shared a headquarters address, and
5 shared the same signatories on contracts, and that GNB continued to report to Gould
6 executives. *See* Hattula Depo. 149:5–151:2, 151:12–154:4, 155:16–158:9, 161:9–
7 162:2, 165:8–166:16, 169:24–170:6, 171:2–172:4; PX_2-0066 to PX_2-0069; PX_2-
8 0071. This evidence, while insufficient by itself to show Gould's direct liability as an
9 operator of the Vernon Plant after selling it to GNB, reinforces a finding that Gould
10 continued to be a causal contributor to the contamination. *See United States v. Sterling*
11 *Centrecorp Inc.*, 960 F. Supp. 2d 1025, 1048 (E.D. Cal. 2013).⁴⁶

12 * * * *

13 GEI bears the burden to provide a reasonable basis in the record for
14 apportionment. To do so, GEI must show the extent of its casual contribution to the
15 contamination at the Vernon Plant and in the Industrial Area. The foregoing analysis
16 shows that GEI has ignored three key time periods of Gould's involvement that total
17 about a decade. GEI's omissions prevent this Court from relying on GEI's proposed
18 divisibility analysis that rests on a purported 47-month period of involvement. If GEI
19 believes Gould did not contribute to the contamination during these three time periods,
20 GEI bears the burden to prove as much. *See Pakootas II*, 868 F. Supp. 2d at 1117 n.13
21 (rejecting divisibility method that did not account for all of a defendant's contributions
22 to the contamination or "rule[] out the possibility there was such a contribution").

23
24 ⁴⁶ *See also Basic Mgmt. Inc. v. United States*, 569 F. Supp. 2d 1106, 1116 (D. Nev.
25 2008) (concluding parent was an operator based on evidence including both
26 "overlapping managers, directors, and employees" with its subsidiary and the
27 parent's involvement in the facility's waste management and disposal systems);
28 *United States v. Newmont USA Ltd.*, No. CV-05-020-JLQ, 2008 WL 4621566, at
*50 (E.D. Wash. Oct. 17, 2008) (considering both the parent's "direct connection to
[the mine's] operations" and the relationship between the parent and subsidiary).

1 **2. GEI ignores evidence that dirty operational practices**
2 **continued for some time after it bought the Vernon Plant.**

3 Mr. McGinnis’s opinions, which lie at the core of GEI’s apportionment
4 theories, are based in substantial part on Mr. McGinnis’s understanding of “the
5 documented conditions that existed [at the Vernon Plant]” between January 1979 and
6 January 1983. *See* ECF No. 897 (McGinnis Decl.) ¶ 268. However, Mr. McGinnis’s
7 assessment amounts to an oversimplistic caricature. Mr. McGinnis over-extrapolates
8 from limited and conflicting historical evidence to construct a narrative that Gould
9 immediately improved industrial hygiene at the Plant upon taking it over from NL.
10 However, the record is far more equivocal. There is ample evidence that Gould’s
11 takeover did not immediately dislodge the Plant’s entrenched dirty habits, and there
12 is also evidence that Gould exacerbated the Plant’s contamination in several key ways.

13 Mr. McGinnis asserts that when Gould took over the Vernon Plant in January
14 1979 after having shipped waste to it since the early 1970s, Gould immediately
15 improved the industrial hygiene practices at the Plant to reduce pollution rates. *Id.*
16 ¶ 137 (referring to “enhanced housekeeping efforts” by Gould); *id.* ¶ 168 (suggesting
17 a sudden shift); *see* Trial Tr. Day 1 at 41:11–14 (similar argument by GEI’s counsel).
18 For example, Mr. McGinnis asserts that Gould “immediately” began cleaning up the
19 West Yard after taking over the Vernon Plant, based on the testimony of former NL
20 and Gould employee Lawrence Spears. *See* ECF No. 897 ¶ 112; Spears Depo. at
21 12:25–13:23 (explaining that he worked for both NL and Gould). Mr. McGinnis also
22 notes that Gould removed “piles of wastes, raw materials, and scrap” that NL had left
23 on the North Yard. ECF No. 897 ¶ 68; *see id.* ¶ 110 (similar). Mr. McGinnis baldly
24 asserts that because Gould made “affirmative efforts and expenditures to improve the
25 Vernon Plant’s condition,” “Gould would not have [] engaged in unpermitted on-site
26 waste disposal.” *Id.* ¶ 113. To lend greater credence to his extrapolations from limited
27 evidence, Mr. McGinnis notes that Gould operated the Vernon Plant during a time of
28 increasingly stringent environmental regulation. *Id.* ¶¶ 107–08.

1 As the Court may expect, the historical record is not so unequivocal and
2 straightforward. For example, Kenneth G. Clark, a former Vernon Plant
3 superintendent, testified in the previous litigation that Gould maintained a practice of
4 storing slag on a concrete pad surrounded by unpaved areas even after the “new plant
5 was constructed” in 1982 or 1983. *See* Clark Depo. at 87:17–88:4. This left the fine,
6 dusty particles in the slag “free to blow” around. *Id.* at 88:16–17. John M. Rossini, a
7 former director for Gould who consulted for the company as it purchased the Vernon
8 Plant and built the new North Yard smelter, testified that when Gould purchased the
9 Plant, the North Yard was littered with “junk batteries.” *See* Rossini Depo. Vol. 1 at
10 13:14–18:6, 29:10–12 (Rossini’s biography); *id.* at 53:10–12 (testimony about
11 batteries). He further stated that “while we built the new plant” in the North Yard, “we
12 had taken all the material and other things that were stored in the North Yard and put
13 them in the South and West Yards.” *Id.* at 103:10–14. This made the West Yard and
14 the South Yard “really congested” with materials and equipment. *Id.* at 103:15.

15 A 1986 “Phase I Site Assessment” prepared by certain engineering
16 consultants,⁴⁷ which GEI’s expert Mr. McGinnis acknowledged was “one of the very,
17 very first environmental investigations at the Vernon Plant,” tells a similar story. *See*
18 Trial Tr. Day 2 (afternoon) at 13:2–5. This 1986 assessment was based on interviews
19 of Vernon Plant employees, *id.* at 13:6–8, all of whom were longtime Plant workers,
20 *see* PX_3-0054.8 (list of interviewees). Consistent with Mr. Rossini’s deposition
21 testimony, the 1986 assessment observed that “Acid Spills” in a West Yard “Battery
22 Storage Area” continued until 1982. *See* PX_3-0054.7. The assessment also observed
23 that “Acid Spills” in a South Yard “Battery Separation Building” continued until 1981.
24 *See id.* A 1996 expert report prepared for GNB Technologies, Inc. based on interviews
25

26
27 ⁴⁷ A lower-resolution version of the 1986 Phase I Site Assessment with a transmittal
28 letter is available at JX_2-0001. A higher-resolution version, sans the transmittal
letter, is available at PX_3-0054.

1 with former Vernon Plant employees also corroborates that Gould used the West Yard
2 to store junk batteries, slag, spent drums, and other materials, and that employees
3 observed spills from those piles. *See* DX_2-01534 at 4-9, 4-12, 4-15 to 4-16.

4 Even more, Gould might have introduced lead-contaminated “waste fill” to the
5 North Yard when excavating it and preparing an appropriate substrate that could
6 support the mass of the new smelter. For example, Mr. McGinnis was cross-examined
7 about boring log TB-77D, which was taken underneath a one-foot-thick asphalt and
8 concrete layer in the North Yard underneath the baghouse building. *See* Trial Tr. Day
9 2 (afternoon) at 7:22–10:21; *see also* DX_3-0617 at 162–64 (boring log TB-77D);
10 PX_2_0552.239 (location of TB-77D). The soil samples collected from the TB-77D
11 boring showed some of the highest levels of soil lead contamination at the Vernon
12 Plant—106,000 parts per million, or 10.6%. *See* Trial Tr. Day 2 (afternoon) at 8:5–
13 13; PX_2-0552.61. This lead reading came in an area of soil labeled as “artificial soil”
14 that must have come from either NL or Gould. *See* Trial Tr. Day 2 (afternoon) at 8:18–
15 23. Mr. McGinnis conceded that he could not determine whether this contamination
16 originated from NL or rather was attributable to fill that Gould introduced while
17 constructing the Vernon Plant. *Id.* at 9:4–10:21.

18 In sum, Mr. McGinnis’s apportionment analysis rests on an overreading of
19 conflicting historical evidence about whether Gould cleaned up the Vernon Plant
20 immediately upon taking it over. He also ignores evidence suggesting that Gould’s
21 changes might have exacerbated contamination by moving spent batteries or other
22 junk across yards and by introducing lead-contaminated fill.

23
24 **3. GEI ignores evidence that it caused subsurface**
25 **contamination by installing a defective North Yard**
stormwater system.

26 It is undisputed that in the early 1980s, Gould installed a stormwater system in
27 the North Yard as it constructed the new smelter. *See* ECF No. 894 (Rouhani Decl.)
28 ¶ 15; ECF No. 897 (McGinnis Decl.) ¶ 17. GEI’s apportionment analysis does not

1 sufficiently account for the likelihood that Gould installed a defective stormwater
2 system, causing contamination through leaks of hazardous substances.

3 The Court heard ample testimony about a 1994 inspection report drafted by
4 stormwater system specialists from a company called Insituform. Any fair reading of
5 the Insituform report shows that the stormwater system that Gould installed in the
6 1980s was failing by the early 1990s. *See generally* DX_2-1527. Insituform inspected
7 3,194 feet of piping and categorized it into three “categories” according to the degree
8 of deterioration. *Id.* at 2, 4, 6. A substantial 1,341 feet of the 3,194 feet—or about
9 42%—was rated as “Category 1,” which warranted “immediate” repairs. *Id.* at 4. This
10 indicated “severe[] degrad[ation].” *See* ECF No. 741-1 (Phase II Laton Decl.) ¶ 28.
11 Insituform warned in a letter to the Vernon Plant that the system was “more similar to
12 an industrial waste line” than a storm drain, and that “heavy debris” and “large
13 quantities of lead and other heavy metals which are not commonly found in storm
14 drains” were found in it. PX_2-0423.

15 GEI tries to minimize the Insituform report as unreliable, but unpersuasively
16 so. *See* ECF No. 897 (McGinnis Decl.) ¶¶ 237–40. Unable to find a plausible basis to
17 discredit or challenge the report, GEI ends up putting most of its stock in an argument
18 that “there is no evidence that the North Yard stormwater lines leaked during the
19 Gould period from 1979 to 1982.” *See id.* ¶ 256; *accord* Trial Tr. Day 1 at 47:7–13,
20 47:21–48:9 (GEI’s opening argument). In fact, GEI’s counsel said in closing argument
21 that “[w]hat is critical from Gould’s perspective is, is there evidence it leaked in 1981
22 and 1982?” *See* Trial Tr. Day 4 (afternoon) at 93:8–9. And GEI’s counsel conceded
23 during closing argument that “[t]here may be evidence that [the North Yard
24 stormwater system] leaked much later in time.” *Id.* at 93:10.

25 The problem with GEI’s framing is that it misstates GEI’s divisibility burden
26 in two ways. First, because divisibility is an affirmative defense, GEI is wrong to
27 assert that other parties bear the burden of proving that the stormwater system leaked
28 while Gould owned the Vernon Plant. Rather, GEI must either rule out such leaks or

1 account for them in its apportionment analysis, because it is GEI’s burden to identify
2 and prove “a reasonable basis for determining the contribution of each cause to [the]
3 harm.” *See Pakootas IV*, 905 F.3d at 595 (quotations omitted). If there is a “lack of
4 evidence” to exculpate Gould of stormwater system leaks, “any [resulting] hardship
5 . . . should fall upon” GEI, not anyone else. *See id.* at 590 (quotations omitted); *O’Neil*,
6 883 F.2d at 179 (“where all of the contributing causes cannot fairly be traced,”
7 defendants should “bear the cost of the uncertainty”).

8 Second, because divisibility focuses on different entities’ causal contributions
9 to the contamination, the relevant question is not whether the North Yard stormwater
10 system leaked during Gould’s ownership and operational period. Rather, the relevant
11 question is whether Gould *caused* the stormwater system to leak, regardless of
12 whether those leaks happened during Gould’s ownership period or sometime later.
13 Gould cannot meet its burden to show that it did not cause the stormwater system to
14 leak because the system failed with alarming rapidity, and because ample evidence
15 shows that Gould probably installed a defective system.

16 As Plaintiffs’ expert Dr. Laton explains, “[t]here were indications before the
17 stormwater system was even constructed that special precautions would be required
18 given the contaminated soils at the Vernon Plant,” but Gould did not heed these
19 indications. *See* ECF No. 895-3 (Laton Decl.) ¶ 59. Namely, Gould’s engineering
20 contractor warned Gould in 1980 “that abnormal pH levels detected in soils at the
21 Vernon Plant meant that ‘the soils will be corrosive to metallic pipes in some
22 locations.’” *Id.* (quoting PX_3-0035.17). “Despite this, many of the pipes used by
23 Gould . . . were steel. Some stormwater pipes were encased in concrete, but this is also
24 problematic as the 1980 [engineer’s] report also advised that, due to the high level of
25 soluble sulfates found in soil, ‘the attack on concrete by sulphates will be
26 considerable.’” *Id.* (quoting PX_3-0035.17). Unsurprisingly, Kenneth Clark—a
27 former Vernon Plant manager—described that on multiple instances in the 1980s, the
28 stormwater pipelines installed by Gould broke and contaminated soils. *See id.* ¶ 56

(citing Deposition of Kenneth Clark (Aug. 1, 1990), at 39). And when the North Yard stormwater system was removed between 2013 and 2014, workers encountered *missing* sections of pipe that Gould had apparently failed to install altogether. *See* Trial Tr. Day 3 (morning) at 68:18–69:15 (testimony of NL’s expert Dr. Davis).

Otherwise, GEI argues the Court need not worry about Gould’s defective North Yard stormwater system because the entire system, as well as the soils surrounding the system, was removed between 2013 and 2014. Trial Tr. Day 4 (afternoon) at 94:12–23 (closing argument); *see* Trial Tr. Day 2 (afternoon) at 72:3–4, 74:4–8 (Dr. Rouhani’s testimony). That is inaccurate. The 2013-2014 stormwater system removal left in place over 400 feet of the piping that Gould had installed in the North Yard, along with the soil contamination near those pipes. *See* PX_3-0041.29, .94; *see also* Trial Tr. Day 2 (morning) at 27:17–19 (Mr. McGinnis’s admission that parts of the stormwater system have been left in place).⁴⁸ Gould’s North Yard stormwater system and associated contamination remain in place today.

In sum, considerable evidence shows that GEI has not met its burden to account for Gould’s causal role in installing a defective stormwater system. GEI’s failure of proof is especially striking given its concession that the Gould-installed stormwater system did, in fact, leak. *See* Trial Tr. Day 4 (afternoon) at 93:10.

4. Dr. Rouhani does not, cannot, salvage GEI’s divisibility analysis.

Dr. Rouhani—a statistician—offers only a narrow analysis of limited aspects of the subsurface contamination in the North Yard. *See generally* ECF No. 894

⁴⁸ The documentary evidence shows that the contractor left in place about 180 feet of pipe between MH-1 and MH-2; 125 feet between MH-7 and MH-6; 77 feet between CL-8 and MH-6; and 90 feet of D-1 to MH-6 (which spans the North Yard and South Yard), were left in place and not removed. *See* PX_3-0041.29. A map depicts the locations of these segments, which lie beneath the North Yard, with the exception of the segment from D-1 to MH-6, which spans the North and South Yards. *See* PX_3-0041.94; NL_DX-004 (color version of same map).

1 (Rouhani Decl.). Accordingly, the Court recognized at trial that “[Dr. Rouhani is] here
2 for a very limited purpose.” *See* Trial Tr. Day 2 (afternoon) at 54:15. Dr. Rouhani’s
3 statistical analysis yielded no significant findings, meaning he does not prove or
4 disprove anything. Consequently, Dr. Rouhani’s analysis offers no useful insights.
5 Moreover, Dr. Rouhani’s methodology was irreparably flawed because he failed to
6 use the most relevant data and failed to account for a key confounding factor: the
7 massive amounts of North Yard subsurface contamination caused by the slag and fill
8 that NL left behind.

9 It is important to understand the limitations of Dr. Rouhani’s analysis as a
10 statistician. Dr. Rouhani first identified three hypotheses: (1) lead contamination in
11 the North Yard subsurface is attributable to stormwater line releases; (2) lead
12 contamination in the North Yard subsurface is attributable to surface releases; and
13 (3) lead contamination in the North Yard subsurface is attributable to sulfuric acid
14 releases. *See* ECF No. 894 ¶¶ 33, 48, 56. After running flawed statistical analyses, Dr.
15 Rouhani renders three elliptically worded “opinions” that correspond to these
16 hypotheses. He opines that his “[s]tatistical analyses of . . . soil data indicate that
17 contamination present in the North Yard cannot be attributed to releases from
18 stormwater lines,” “surficial lead releases,” or “surficial acid releases.” *See id.* ¶ 64.

19 In layperson’s terms, Dr. Rouhani is merely testifying that based on his chosen
20 “[s]tatistical analyses,” he can say to a “reasonable degree of scientific uncertainty”
21 that his techniques were *unable to prove* a causal link: (1) between stormwater system
22 releases and the totality of North Yard subsurface contamination; (2) between surface
23 releases and the totality of such contamination; or (3) between sulfuric acid releases
24 and the totality of such contamination. *Id.* ¶¶ 3, 64. So, Dr. Rouhani’s statistical
25 analysis is unhelpful for two key reasons. First, Dr. Rouhani’s conclusions are not
26 probative of anything; he simply designed statistical tests in an attempt to prove some
27 limited hypotheses, and found himself unable to prove or disprove anything because
28 he found no statistically significant findings. *See generally id.* Second, Dr. Rouhani’s

1 hypotheses are strawmen. No party contends that the North Yard’s subsurface
2 contamination is attributable solely to the North Yard stormwater system, to surface
3 releases, or to sulfuric acid. Instead, as GEI’s own evidence shows, the stormwater
4 system leaked into already-contaminated fill that was introduced by NL. *E.g.*, Trial
5 Tr. Day 1 at 110:14–21 (GEI’s expert Mr. McGinnis’s testimony about the extensive
6 fill in the North Yard attributable to NL).

7 Further, Dr. Rouhani’s analysis also shares many of the problems as other
8 defense experts’ analyses:

- 9 • He fails to justify why North Yard subsurface contamination should be assessed
10 as a separate slice (i.e., a distinct sub-harm) of the entirety of the contamination;
- 11 • He fails to consider anything more than the North Yard, and thus does not
12 consider “the entirety of contamination at [the] site,” *see Pakootas IV*, 905 F.3d
13 at 592; and
- 14 • He does not even come close to providing “a reasonable basis for determining
15 the contribution of *each cause* to [the] single harm,” *see Burlington*, 556 U.S.
16 at 614 (emphasis added).

17 Nor is Dr. Rouhani’s statistical analysis useful as an adjunct to Mr. McGinnis’s
18 somewhat broader analysis, because Dr. Rouhani failed to account for confounding
19 variables and arbitrarily ignored the most relevant data for determining whether
20 Gould’s North Yard stormwater system leaked.

21 **Failure to Account for Confounding Variables.** Dr. Rouhani was cross-
22 examined about whether he had accounted for a range of confounding variables that
23 could have prevented him from finding statistically significant patterns using his
24 methods. Even though Dr. Rouhani initially claimed to have “tried to minimize the
25 impacts of other confounding factors” that could affect soil lead concentrations in the
26 North Yard, his cross-examination testimony quickly revealed that he had made no
27 such effort. *See* Trial Tr. Day 2 (afternoon) at 47:6–25. For instance, Dr. Rouhani had
28 not accounted for “the effect of land farming of lead-bearing waste by NL or other

1 operators of the facility,” or “the effects of buried fill or slag in the North Yard,” *id.*
2 at 47:16–25.

3 This omission is fatal to Dr. Rouhani’s opinions. Mr. McGinnis, GEI’s other
4 witness, opines that NL engaged in extensive “land farming” at the Vernon Plant,
5 which “is just using a bulldozer to cover the earth in successive layers of waste and
6 soil to build up the site.” *See* Trial Tr. Day 1 at 40:4–6 (GEI’s counsel’s explanation
7 of Mr. McGinnis’s opinion); *see also* ECF No. 897 (McGinnis Decl.) ¶ 99. Mr.
8 McGinnis testified that in the North Yard, this sort of soil “mixing” is expected to
9 cause subsurface pollution to be uneven in its distribution and to manifest in
10 “contaminated pockets.” *See* Trial Tr. Day 1 at 148:10–16. Put differently, “you have
11 pockets [of contamination] here and there and it is all blended together.” *Id.* at 148:24–
12 25. So, if a soil boring or sample is taken, “one boring may not have hits [i.e., high
13 contamination detections] where they [are] sampled,” but “other borings” may
14 experience “sporadic hits” because of the “the layering and the pushing” of
15 contaminated materials by bulldozers. *See id.* at 149:7–18. If the North Yard’s
16 subsurface—as Mr. McGinnis testified—experiences such sporadic and uneven
17 contamination because of land farming, Dr. Rouhani’s search for meaningful
18 statistical patterns in the soil samples was destined to fail from its inception.

19 **Arbitrarily Ignoring the Most Relevant Data.** In addition, Dr. Rouhani’s
20 cross-examination showed that he had arbitrarily excluded the data most relevant to
21 assessing whether the North Yard stormwater system had leaked and contributed to
22 subsurface contamination. The Court heard that when assessing whether “releases
23 from stormwater lines” had affected the North Yard’s subsurface, *see* ECF No. 894
24 ¶ 3, Dr. Rouhani had inexplicably relied in the “first” instance on samples “taken
25 [from] the side of the [stormwater] pipe[s]” (1 or more feet horizontally away), not
26 samples taken *below* the pipes. *See* Trial Tr. Day 2 (afternoon) at 59:22–60:1. Worse,
27 Dr. Rouhani ignored a set of “direct read” samples that were taken immediately below
28 stormwater pipes, *see id.* at 60:21–61:12, even though he believes that “the best

1 samples to use would be the samples that were nearest to the bottom of the pipe,” *id.*
2 at 59:1–3. In lieu of the “direct read” samples taken directly beneath the pipes, Dr.
3 Rouhani considered a set of “hand-auger” samples that were taken much farther away
4 from the bottom of the pipes. These hand-auger samples were taken *after* the pipes
5 themselves and a considerable amount of soil beneath the pipes had been excavated
6 and removed. *Id.* at 59:7–60:20. By ignoring the “direct read” samples closest to the
7 bottom of the stormwater pipes, Dr. Rouhani ignored the samples most likely to
8 indicate the presence of hazardous substance leaks. *Id.* at 60:18–62:19.

9 The Court can view the data that Dr. Rouhani ignored for itself: Table 6, which
10 includes the “direct read” data, shows a clear pattern whereby the shallowest samples
11 in most locations—taken just beneath stormwater pipes—exhibit dramatically higher
12 lead concentrations than deeper samples. *See* NL_DX_3-004 at 57–60. This pattern is
13 consistent with lead contamination having leaked from stormwater pipes. Dr.
14 Rouhani’s refusal to consider this highly probative data was especially problematic
15 given the preexisting and unevenly distributed soil contamination in the North Yard
16 attributable to NL’s land farming practices, which have a confounding effect that can
17 mask the contributions of stormwater system releases to soil contamination.

18 Dr. Rouhani’s only excuse for his inexplicable decision to ignore the most
19 relevant “direct read” data directly underneath the North Yard stormwater system is
20 that he believes the North Yard stormwater system and any resulting soil
21 contamination has already been removed. *See* Trial Tr. Day 2 (afternoon) at 72:3–4.
22 This explanation is facially nonsensical. In any event, as discussed, Dr. Rouhani’s
23 belief is incorrect: over 400 feet of the North Yard stormwater system—and
24 surrounding soils—was never removed and remains in place. *See supra* Section
25 IV.B.3.

26 In sum, Dr. Rouhani’s analysis is unhelpful, and his opinions are fatally flawed
27 because of his failure to account for confounding factors and choice to ignore the most
28 relevant “direct read” data.

1 **C. NL and GEI Are Wrong to Theorize that Lead in Vernon Plant**
2 **Buildings Came Solely from Post-1983 Operations or Lead Paint.**

3 NL and GEI theorize that any contamination they caused at Vernon Plant
4 buildings that date to Kirk's, NL's or Gould's ownership periods has already been
5 cleaned up. *See* ECF No. 889-8 at 3–4 (Dr. Davis's list of buildings, showing buildings
6 of that vintage). Their experts—Dr. Davis for NL, and Mr. McGinnis for GEI—
7 support this opinion with speculation that rainfall and industrial hygiene practices
8 cleaned up any building contamination. Mr. McGinnis further speculates that all the
9 lead contamination now found in Vernon Plant buildings came from lead-based paint.

10 Initially, NL and GEI do not justify how building contamination is a distinct
11 harm. As explained, the building contamination at the Vernon Plant is contiguous
12 with, and was caused by the same mechanisms as, subsurface contamination. *See*
13 *supra* Section III.C. Moreover, even if NL and GEI were not responsible for building
14 contamination, it is undisputed that the subsurface contamination—much of it
15 traceable to Kirk, NL, and Gould—cannot be addressed without removing built
16 structures. *See* Trial Tr. Day 2 (afternoon) at 28:15–19 (Mr. McGinnis's testimony).

17 More fundamentally, the evidence does not support NL and GEI's theories
18 about contamination being cleaned up, which amounts to little more than unsupported,
19 untested *ipse dixit*.⁴⁹ Instead, the evidence shows that contamination of Vernon Plant
20 structures is deeply entrained, cannot be removed by mere precipitation or routine
21 cleaning, and is not attributable to lead paint. *See, e.g.*, PX.3-0006.

22 Mr. McGinnis was asked about a study that sampled for lead and other heavy
23 metals at five Vernon Plant buildings in 2022—nearly a decade after the Plant ceased
24 operations in 2014. *See* Trial Tr. Day 2 (afternoon) at 24:1–10; *see* PX.3-0006 (study).

25
26 ⁴⁹ It is unclear whether Dr. Davis and Mr. McGinnis are even qualified to opine
27 about what it would take to remove lead contamination from structures. At the very
28 least, Dr. Davis lacks any background in lead remediation, as the Court heard at the
Phase II trial. *See* Phase II Trial Tr. Day 1 (May 30, 2023), at 235:18–20.

1 In this study, 93% of building exterior samples and 100% of building interior samples
2 exceeded applicable standards for lead set by the California Department of Public
3 Health (“CDPH”), proving that precipitation has not appreciably washed away the
4 persistent lead contamination on Vernon Plant structures. *See* ECF No. 714-5 (Phase
5 II Mistry Decl.) ¶¶ 58–67; ECF No. 895-3 (Laton Decl.) ¶ 91.⁵⁰

6 To defend his theory that lead contamination had been cleaned up or washed
7 away by precipitation, Mr. McGinnis insisted that the high lead concentrations
8 detected in the 2022 samples came from lead paint that covered the sampled surfaces.
9 *See* Trial Tr. Day 2 (afternoon) at 24:11–14. Mr. McGinnis was then provided
10 photographic evidence showing that the 2022 sampling included unpainted surfaces
11 such as rooftop sampling point GAR-002, which tested at nearly 5 times the CDPH
12 standard for lead on building exterior surfaces⁵¹:

23
24 ⁵⁰ As Dr. Laton explained at the Phase II trial, these lead exceedances were not
25 attributable to the removal of the North Yard smelter, which occurred within a
26 negative pressure enclosure and under constant air monitoring. *See* ECF No. 741-1
(Phase II Laton Decl.) ¶ 120.

27 ⁵¹ *See also* PX_3-0006.18 (1,900 micrograms per square foot ($\mu\text{g}/\text{ft}^2$) lead at GAR-
28 02); ECF No. 714-5 (Phase II Mistry Decl.) ¶ 41 (400 $\mu\text{g}/\text{ft}^2$ standard applies to such
exterior surfaces).



GAR-002: Garage/Exterior, Roof, East, Right

See PX_3-0006.107 (photograph).⁵² Indeed, *every* unpainted roof that was sampled in the 2022 study showed elevated levels of lead. See PX_3-0006.16–19 (table of sample results, showing all roof samples exceeded regulatory standard).

Mr. McGinnis—who admitted that the 2022 sampling included unpainted surfaces like GAR-002, *see* Trial Tr. Day 2 (afternoon) at 24:21–23—insisted that the lead detected at GAR-002 had somehow come from lead paint, *see id.* at 25:8–13. When pressed, Mr. McGinnis quickly changed stories, speculating that the unpainted roof might be made from a lead-containing metal alloy. *Id.* at 25:14–17.

⁵² The exhibit as lodged with the Court, PX_3-0006 was in black and white. Plaintiffs used a color version of PX_3-0006 to impeach Mr. McGinnis.

1 Mr. McGinnis was also asked how lead-based paint could explain the arsenic
2 contamination that has been detected on Vernon Plant buildings, especially since
3 arsenic is not associated with lead paint.⁵³ Mr. McGinnis speculated that arsenic might
4 have been painted onto the Vernon Plant's structures, but he admitted on cross-
5 examination that he was unable to identify any instance when arsenic has been
6 intentionally added to paint anytime in the last 40 years. He also acknowledged that
7 the toxicity of arsenic has been understood for a long time, making it unlikely that the
8 Plant had somehow been painted with arsenic. *See id.* at 25:23–26:18.

9 Similarly, Dr. Davis and Mr. McGinnis's hypothesis that routine industrial
10 hygiene practices cleaned away the contamination on the Vernon Plant's structures is
11 contrary to the record evidence. The Court heard Dr. Laton testify about sampling that
12 had been conducted at the North Yard smelter building after the Vernon Plant ceased
13 operations. *See* Trial Tr. Day 4 (morning) at 47:11–49:18. Before the samples were
14 taken, each sampling location was power-washed two to four times. Sampling
15 locations on the feed room floor were additionally bead-blasted with at least two
16 passes.⁵⁴ *See* PX_3-0002.1; Trial Tr. Day 4 (morning) at 48:10–49:4. Even after this
17 aggressive cleaning, North Yard smelter building levels showed high levels of lead,
18 including on 68% of samples from the bead-blasted floors. *See* Trial Tr. Day 4
19 (morning) at 49:5–7. Naturally, the environmental consulting company that conducted
20 the study concluded that further cleaning was unlikely to remedy building
21 contamination. *See* PX_3-0002.2; Trial Tr. Day 4 (morning) at 49:8–18.

24 ⁵³ *See* ECF No. 895-3 (Laton Decl.) ¶ 92 (describing this arsenic contamination);
25 PX_3-0043.5–6 (table of sample results showing all seven buildings contained
26 arsenic above 12 mg/kg); ECF No. 714-5 (Phase II Mistry Decl.) ¶ 35 (arsenic
standard is 12 mg/kg).

27 ⁵⁴ Bead-blasting is a cleaning method similar to sand-blasting, where a surface is
28 abraded by blasting beads at it.

1 The Vernon Plant's structures are undisputedly and extensively contaminated.
2 Dr. Davis's and Mr. McGinnis's unsupported assertions about the cleaning or washing
3 away of that contamination brings to mind *United States v. Vertac Chemicals Corp.*,⁵⁵
4 where a defendant relied on an unfounded "flushing theory" to assert that harmful
5 dioxin contamination might been flushed away because a plant operator had run high
6 volumes of other material through production vessels. 364 F. Supp. 2d 941, 952 (E.D.
7 Ark. 2005), *aff'd*, 453 F.3d 1031 (8th Cir. 2006). The court recognized, "[The
8 defendant's] flushing theory remains just that—a theory. It has not been subjected to
9 scientific testing and validation." *Id.* So too here. NL and GEI are wrong to claim that
10 they have no causal responsibility for the extensive contamination found in the Vernon
11 Plant's buildings that date to their ownership periods.

12 **D. Clarios Has Conceded the Indivisibility of All Contamination Other**
13 **than TCE, Which Is Not Divisible in Any Event.**

14 Clarios's sole argument for divisibility is that TCE contamination at the Vernon
15 Plant is divisible from lead contamination. ECF No. 888 at 1 (Clarios's pretrial brief).

16 Plaintiffs note that it is not entirely clear what Clarios means when it asserts
17 that TCE contamination is divisible from lead contamination, as the divisibility case
18 law does not conceive of apportionment as something that is made between two
19 different chemical pollutants. Read in tandem with Clarios's opening argument, *see*
20 Trial Tr. Day 1 at 81:11–85:21, Clarios's divisibility theory appears to be the
21 following: because (1) TCE contamination is a *distinct harm* from other subsurface
22 contamination and (2) Clarios⁵⁶ did not cause any TCE contamination, Clarios should
23 bear no liability for that distinct harm. Clarios's divisibility argument is therefore
24

25
26 ⁵⁵ This was a decision on remand from the Eighth Circuit's 2001 *Hercules* decision.

27 ⁵⁶ Clarios's predecessors, not Clarios itself, sent lead-bearing materials to the Vernon
28 Plant. For simplicity's sake, Plaintiffs will collapse the distinction between Clarios
and its predecessors except where relevant.

1 exceedingly narrow and amounts to a significant concession: Clarios has conceded
2 indivisibility as to all other aspects of the contamination at the Vernon Plant and in
3 the Industrial Area.⁵⁷

4 In any event, Clarios is wrong to argue—through its expert Dr. Robrock—that
5 the Vernon Plant’s subsurface TCE contamination is separate and distinct from
6 subsurface lead contamination. Dr. Robrock offers four bases to find TCE
7 contamination to be a distinct harm: (1) the causes of TCE contamination differ from
8 the causes of lead contamination; (2) TCE and lead contamination at the Vernon Plant
9 are geographically distinct; (3) TCE and lead are different chemicals; and (4) TCE
10 and lead contamination require different remediation methods. *See* Trial Tr. Day 3
11 (morning) at 90:21–92:12; ECF No. 888 at 6–12. Each of these bases is unsupported
12 by the law and the record.

13 First, Clarios has not met its burden to prove that the causes of TCE
14 contamination are distinct from the causes of lead contamination. Clarios insists that
15 because it never sent TCE to the Vernon Plant, it is causally unconnected to it. *See*
16 ECF No. 888 at 11:25–12:26. Clarios makes much of the fact that the lead-bearing
17 materials it sent to the Plant were put through the secondary smelting process, but
18 TCE was released into the South Yard’s subsurface from the mixed metals extrusion
19 process that used TCE as a coolant. *See id.*; *see also* ECF No. 895-4 (Quivik Decl.)
20 ¶ 28 (coolant use). However, Dr. Robrock ignores evidence that the two processes are
21 closely tied. As Dr. Robrock testified, the mixed metals extrusion process used lead
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24 ⁵⁷ Clarios’s expert Dr. Robrock even acknowledges that “automotive batteries,”
25 which comprised much of the materials Clarios sent to the Vernon Plant, “typically
26 contain . . . sulfuric acid, [] antimony, arsenic, and” other contaminants. ECF No.
27 886 (Robrock Decl.) ¶ 10; *see* ECF No. 712 (Phase II LeMieux Decl.) ¶ 12 (“The
28 overwhelming majority of materials sent by JCBGI to recycling facilities were spent
lead-acid automotive batteries.”). Dr. Robrock does not address these pollutants,
which undisputedly have been detected throughout the Plant.

1 to manufacture products like lead solder and lead came.⁵⁸ See Trial Tr. Day 3
2 (morning) at 94:25–95:10. Former Vernon Plant employee Rudolf Telles testified in
3 prior litigation that the lead used in the mixed metals extrusion process was “alloyed,”
4 meaning it was refined lead. See Telles Depo. at 27:18–20. The Vernon Plant—of
5 course—was in the business of processing spent lead sent by entities like Clarios and
6 turning it into refined lead. Preuth Depo. at 54:8–20.

7 Under these circumstances, Clarios—which shipped large quantities of lead-
8 bearing materials to the Vernon Plant starting in December 1973 or earlier⁵⁹—cannot
9 satisfy its divisibility burden by *assuming* that its shipments lacked a causal
10 relationship with the mixed metals extrusion process and resulting TCE releases. After
11 all, Clarios bears the burden to prove “a reasonable basis for determining the
12 contribution of each cause to [the] harm,” *Pakootas IV*, 905 F.3d at 595 (quotations
13 omitted), and Clarios’s defense fails if there is a “lack of evidence” to prove how much
14 harm it caused, *see id.* at 590. Dr. Robrock’s analysis did not account for the likelihood
15 that refined lead recovered from the secondary lead smelting process—including lead
16 recovered from Clarios’s shipments—was used in the mixed metals extrusion process
17 that released TCE. See Trial Tr. Day 3 (morning) at 96:10–13. Because Clarios has
18 not shown that its shipments to the Vernon Plant did not cause TCE to be released,
19 Clarios cannot prove divisibility.

20 Second, TCE and lead contamination are not geographically distinct. As
21 Plaintiffs’ expert Dr. Laton explained in his trial declaration, lead and TCE are co-

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24 ⁵⁸ Lead came is the thin lead material that is placed between panes of stained glass.

25 ⁵⁹ The earliest evidence of such shipments is a December 1973 agreement between
26 NL and Globe-Union, Inc., Clarios’s predecessor, that contemplated shipments to
27 NL’s Los Angeles (Vernon) smelter. See PX_2-0115.5. This agreement
28 contemplated that Globe-Union would send significant tonnages of lead-bearing
materials to NL. See PX_2-0115.2–3; *see also* ECF No. 840 (Plaintiffs’ Phase II
post-trial brief) at 1–2 n.1 (explaining how Globe-Union, Inc., came to be Clarios).

1 located in various parts of the Vernon Plant, including the South Yard. *See* ECF No.
2 895-3 (Laton Decl.) ¶¶ 40, 43–46. For example, as depicted in the figure on Page 28,
3 the subsurface below the Old Mixed Metals Extrusion Building contains lead and TCE
4 in the same location. *See id.* ¶ 45 (“TCE and lead are located in the same area” below
5 this building). Indeed, Clarios and Dr. Robrock acknowledge that TCE and lead are
6 co-located and commingled at this location. *See* ECF No. 888 at 1, 5 (referring to
7 “colocation” or “co-location”); Trial Tr. Day 3 (morning) at 84:19–24, 93:10–94:1.
8 Clarios also acknowledges that “TCE is present in soil vapor above the regulatory
9 screening level in the North and West Yards,” in areas where lead is also present. *See*
10 ECF No. 888 at 10 n.9. Clarios appears to argue that because TCE is not present in
11 every area of the site where lead is present, the two contaminants are geographically
12 distinct. *See id.* at 10; ECF No. 886 (Robrock Decl.) ¶ 72; Trial Tr. Day 3 (morning)
13 at 94:13–24. But that facile analysis misses the fact that in places where TCE is
14 present, lead is also present, making the contaminants commingled. *See* ECF No. 895-
15 3 (Laton Decl.) ¶¶ 40, 43–46; *accord* Trial Tr. Day 3 (afternoon) at 34:21–23
16 (testimony by Dr. Cutler, expert for the Other Arrangers, that wherever TCE is
17 located, one or more metals are found in the same location). Because commingling of
18 contaminants “precludes apportionment based on distinct harms,” Clarios’s
19 divisibility defense fails for this additional, independent reason. *See La Plata*, 768 F.
20 Supp. 2d at 1117.

21 Third, Dr. Robrock’s observation that TCE and lead are different chemicals is
22 immaterial. Courts routinely find harm to be indivisible when different chemicals are
23 present together, as illustrated by the principle that commingling “precludes
24 apportionment based on distinct harms.” *Id.* The presence of different chemicals will
25 support a finding of distinct harms only when those “distinct pollutants [] are
26 geographically separated,” *see Memphis Zane May Assocs. v. IBC Mfg. Co.*, 952 F.
27 Supp. 541, 548 (W.D. Tenn. 1996), such that they constitute “separate and
28 independent” harms, *see Hatco*, 836 F. Supp. at 1087. Those are not the facts here.

1 Fourth, the potential remediation strategies for TCE and lead contamination
2 here do overlap. In any event, Clarios does not show that overlapping *potential*
3 *remediation strategies* supports finding divisibility of the *contamination*. As Dr.
4 Robrock admitted at trial, lead and TCE can both be removed from soil through soil
5 excavation. Trial Tr. Day 3 (morning) at 94:2–8. What’s more, Dr. Cutler states in his
6 trial declaration that *in situ* enhanced biodegradation could be used as a remedy to
7 remediate both volatile organic compounds (like TCE) and metals (like lead). ECF
8 No. 883 (Cutler Decl.) ¶ 15(d). So, the potential remediation methods for TCE and
9 lead are overlapping, not distinct. And even if the potential remediation methods were
10 entirely distinct, Clarios provides no authority for the view that different *remedies*
11 provide a reasonable basis for apportioning the *contamination*—the crux of the
12 divisibility inquiry. *See Pakootas IV*, 905 F.3d at 588 (“[t]he divisibility analysis
13 involves . . . whether the *environmental harm* is theoretically capable of
14 apportionment” (emphasis added)); *United States v. Burlington N. & Santa Fe Ry.*
15 *Co.*, 502 F.3d 781, 798 (9th Cir. 2007) (rejecting the notion that the relevant “harm”
16 for a divisibility analysis is the “cost of remediation” (emphasis omitted)), *rev’d on*
17 *other grounds sub nom. Burlington*, 556 U.S. 599.⁶⁰

18 In sum, Clarios does not meet its divisibility burden because none of Dr.
19 Robrock’s rationales for dividing subsurface TCE contamination and lead
20 contamination comports with the law or the record. On the contrary, lead and TCE
21 contamination are indivisible because they are commingled and causally connected.
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23
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26 ⁶⁰ As explained in Plaintiffs’ pretrial brief, some courts have found *past* remediation
27 *costs* to be a proxy for approximating harm, but Plaintiffs are not aware of any cases
28 stating or suggesting that potential *future* remediation *methods* are relevant to a
divisibility analysis. *See* ECF No. 880 at 23:20–24:2 & 24 n.15.

1 **E. The Other Arrangers’ Mass-Based Approach Ignores Key**
2 **Contaminants and Is Obviously Inaccurate, Especially for Trojan.**

3 The Other Arrangers (KBI, Oregon Tool, Ramcar, and Trojan) jointly propose
4 a divisibility method devised by Mr. Simpson.⁶¹ This method is fundamentally flawed
5 because Mr. Simpson does not properly address contamination and relies on irrational
6 assumptions. The inaccuracies in his analysis are especially severe for Trojan.

7 **1. Mr. Simpson’s mass-based approach is admittedly inaccurate**
8 **and incomplete.**

9 Recall that [t]he divisibility analysis involves . . . whether the environmental
10 harm is theoretically capable of apportionment,” that is, “the entirety of *contamination*
11 at a site.” *Pakootas IV*, 905 F.3d at 588, 592 (emphases added).

12 Mr. Simpson’s divisibility analysis does not consider contamination. Instead,
13 he first estimates the mass of lead-bearing materials that each of the Other Arrangers
14 sent to the Vernon Plant. He then divides that mass by the estimated mass of all lead-
15 bearing materials ever processed at the Vernon Plant from the 1920s to the 2010s. He
16 assumes that the resulting fraction accurately measures an arranger’s causal
17 contribution to contamination at the Vernon Plant and in the Industrial Area. *See*
18 *generally* ECF No. 893 (Simpson Decl.).

19 In so doing, Mr. Simpson assumes without any evidence or analysis that the
20 mass of lead-bearing materials shipped by an arranger to the Vernon Plant is a
21 reasonable proxy for their contribution to the contamination. *See* Trial Tr. Day 3
22 (afternoon) at 49:5–8. It is not. The record is replete with evidence that the mode and
23 rate of hazardous substance releases from the Vernon Plant changed markedly over
24 the decades. For example, the North Yard smelter was “designed and built” in the
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27 ⁶¹ *See* ECF No. 892 (Trojan’s pretrial brief) at 8–12; ECF No. 884 (Oregon Tool’s
28 pretrial brief) at 13–14; ECF No. 885 (KBI’s pretrial brief) at 8; ECF No. 881
(Ramcar’s pretrial brief) at 1, 8–9.

1 early 1980s “to meet modern environmental . . . regulations.” *See* ECF No. 895-4
2 (Quivik Decl.) ¶¶ 15–20.⁶² So, one ton of lead shipped to the Vernon Plant in 1960
3 did not cause the same amount of contamination as one ton of lead shipped in 2010.
4 *See* ECF No. 895-3 (Laton Decl.) ¶ 9 (explaining that Mr. Simpson’s assumption is
5 flawed because “it assumes that the greatest amount of contamination occurred during
6 the period when environmental regulation was the most stringent”). Indeed, even Mr.
7 Simpson concedes that “the vast majority of environmental harm was caused by burial
8 of slag and other waste prior to 1979,” but he still “assume[s] that the proportion of
9 lead contributed to the Exide Plant [no matter the year] is proportional to the
10 environmental harm.” ECF No. 893 at ¶ 44; *see also* Trial Tr. Day 3 (afternoon) at
11 50:15–18 (similar).

12 Mr. Simpson’s inaccurate divisibility analysis is unviable for several reasons.
13 First, it relies on irrational “simplifying” assumptions. *E.g.*, Simpson Depo. at 69:18–
14 70:3. Mr. Simpson tries to excuse his oversimplifications by arguing that his
15 assumptions are sufficiently “conservative” to roughly balance out in the wash, *see*
16 ECF No. 893 at ¶¶ 9, 25–26, 28, 31, 40–44, 46; Trial Tr. Day 3 (afternoon) at 48:6–
17 12, but he did not seriously contest during cross-examination that his “simplifying”
18 assumptions may render his divisibility analysis inaccurate, *see* Trial Tr. Day 3
19 (afternoon) at 51:5–11. To illustrate, Mr. Simpson assumes that 60,000 tons of lead
20 were processed at the Vernon Plant each year between 1945 and 1981 and that 110,000
21 tons of lead were processed annually between 1982 and 2015. ECF No. 893 ¶ 42; Trial
22 Tr. Day 3 (afternoon) at 50:6–14. As Dr. Laton explained, this “assumption is contrary
23 to the factual record” because the Vernon Plant’s processing capacity in 1982 was
24 only 66,000 tons. ECF No. 895-3 ¶ 76. When questioned at trial, Mr. Simpson could
25 not provide a rational basis for his assumption, even admitting he was “not trying to
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27 ⁶² For example, the Vernon Plant reportedly released 58,400 pounds of lead into the
28 air in 1987, and only 863 pounds of lead in 2000. *See* ECF No. 895-3 ¶ 73.

1 imply . . . precision in [his] analysis.” See Trial Tr. Day 3 (afternoon) at 50:6–51:1.
2 Mr. Simpson’s haphazard approach to divisibility far exceeds *Pakootas IV*’s tolerance
3 for certain “*logical* inferences, assumptions, and approximations,” 905 F.3d at 589
4 (emphasis added), and contravenes *Burlington*’s command that “apportionment is
5 proper [only] when there is a *reasonable* basis for determining the contribution of each
6 cause to a single harm,” 556 U.S. at 614 (emphasis added) (quotations omitted).
7 Nothing in *Burlington* or *Pakootas IV* authorizes reliance on an arbitrary and
8 inaccurate divisibility analysis based on an excuse that it rests on “conservative”
9 assumptions. See *supra* Section I.B.6 (explaining why Defendants’ legal arguments
10 about “conservative” assumptions for apportionment are wrong).

11 Second, Mr. Simpson’s apportionment method would effectively assign *zero*
12 liability to the owners and operators of the Vernon Plant, tantamount to a conclusion
13 that they did not causally contribute to the contamination. See Simpson Depo. at 78:6–
14 79:8. That is patently unreasonable. To reiterate: a defendant asserting the divisibility
15 defense must account for “the contribution of *each cause* to a single harm.”
16 *Burlington*, 556 U.S. at 614 (emphasis added). No precedent excuses Defendants from
17 this requirement. See *Pakootas IV*, 905 F.3d at 590 (explaining that the “hardship[s]”
18 in the divisibility analysis “should fall upon the” defendant, not the plaintiff
19 (quotations omitted)). And—as discussed—it is possible to apportion liability among
20 causal contributors that fall within different covered-person categories. See *supra*
21 Section III.A.2 (countering GEI’s argument that it is impossible to apportion liability
22 among owners, operators, and arrangers).

23 Third, Mr. Simpson altogether fails to account for sulfuric acid,⁶³ which
24 undisputedly has a synergistic effect with heavy metals (like lead) and plays an
25

26 ⁶³ To reiterate: Ramcar has argued that the Court should ignore the arranger
27 Defendants’ sulfuric acid shipments to the Vernon Plant for divisibility purposes,
28 because sulfuric acid came from battery shipments that—under the SREA—do not

important role in the Vernon Plant’s commingled contamination. *E.g.*, ECF No. 895-3 (Laton Decl.) ¶ 9. At trial, Mr. Simpson testified that he did not consider how much sulfuric acid the Other Arrangers shipped to the Vernon Plant because he “didn’t need to, to make this very simple analysis.” Trial Tr. Day 3 (afternoon) at 52:5–12. Mr. Simpson’s gloss is especially inappropriate given the facts at hand. Recall that lead and sulfuric acid are commingled at the Vernon Plant, giving rise to a presumption of indivisible harm. *See Pakootas IV*, 905 F.3d at 592–93. Especially given this presumption, Mr. Simpson must address and account for sulfuric acid as part of “the entirety of contamination” instead of blithely ignoring it, *see id.* at 592, especially since at least two of his four clients sent sulfuric acid to the Vernon Plant. *See* ECF No. 711 ¶ 9 (Ramcar); Phase II Trial Tr. Day 2 (May 31, 2023) at 168:1–8 (Ramcar CEO’s sworn testimony); ECF No. 707 ¶ 12 (Trojan); *see also* ECF No. 840 at 45 (Trojan sent “wood with acid” to the Plant). Mr. Simpson likewise fails to account for any other contaminants—such as heavy metals other than lead—that were likely contained in the Other Arrangers’ Vernon Plant shipments.

Fourth, Mr. Simpson accounts for the Other Arrangers’ shipments only to the extent they are recorded in hazardous waste manifests. *See* Trial Tr. Day 3 (afternoon) at 44:23–45:1.⁶⁴ But KBI, Ramcar, and Trojan undisputedly sent potentially significant quantities of materials to the Vernon Plant without recording the shipments on manifests. *See* ECF No. 840 at 41–42 (Plaintiffs’ Phase II post-trial brief, compiling evidence for KBI and Trojan); ECF No. 711 ¶ 26 (Ramcar’s admission that it did not

give rise to CERCLA liability. *See* ECF No. 881 at 10 n.4. This argument fails for reasons given in Footnote 11.

⁶⁴ Mr. Simpson claimed at trial that—after providing his expert report and being deposed—he amended his analysis to account for a few known shipments by Trojan to the Plant in the 1970s. *See* Trial Tr. Day 3 (afternoon) at 45:2–46:2. But, as discussed in greater detail below, he accounted only for shipments from the 1970s with available shipping invoices, not the entire array of shipments that have been described in documentary evidence. *Id.* at 45:22–48:24.

1 use manifests when shipping batteries). Thus, Mr. Simpson's analysis may
2 significantly underestimate the mass of lead-based materials that his clients shipped
3 to the Vernon Plant.

4 Mr. Simpson's oversimplified analysis does not meet KBI, Oregon Tool,
5 Ramcar, and Trojan's divisibility burden. Experts like Mr. Simpson cannot simply
6 throw up their hands, paper over uncertainties, and guess to apportion liability.
7 Divisibility is appropriate only in the "rare case" where the harm is theoretically
8 capable of apportionment, and there is a reasonable basis in the record to apportion
9 liability based on relative contributions to the harm. *See id.* at 588–89.

10 **2. The inaccuracy of Mr. Simpson's approach is especially**
11 **severe for Trojan.**

12 The flaws in Mr. Simpson's divisibility analysis are especially severe for
13 Trojan. Documentary evidence shows that Trojan undoubtedly shipped large amounts
14 of materials to the Vernon Plant in the 1970s without using hazardous waste manifests.
15 *See, e.g.,* PX_2-0199 (invoices from 1972 crediting Trojan's "conversion" account
16 based on battery shipments to the Vernon Plant); Ganster Depo. at 40:4–43:3.
17 However, Mr. Simpson accounts for only Trojan's shipments to the Vernon Plant that
18 were recorded on manifests, the earliest of which came from 1988. *See* ECF No. 893
19 (Simpson Decl.) ¶ 12–13; Trial Tr. Day 3 (afternoon) at 45:22–22, 57:9–13.

20 After submitting his expert report and being questioned at his deposition about
21 his decision to ignore Trojan's pre-1988 shipments, Mr. Simpson apparently
22 performed a new, undisclosed analysis of the small subset of Trojan's pre-1988
23 shipments for which shipment records are still available today. *See* Trial Tr. Day 3
24 (afternoon) at 45:4–46:2. Because Mr. Simpson's additional analysis does not even
25 appear in his trial declaration, it is unclear what exactly he did, much less that the
26 analysis is properly before the Court. *See* ECF No. 893. In any event, Mr. Simpson's
27 additional, belated analysis was flawed because he considered only the small subset
28 of pre-1988 shipments for which shipping records (e.g., invoices) survive to this day,

1 and he made no attempt to account for the full range of Trojan’s pre-1988 shipments.
2 *See id.* at 46:3–48:24.

3 Vernon Plant documents show that Trojan sent very large amounts of materials
4 to the Plant during the 1970s. A 1976 NL document lists Trojan as a “major” customer.
5 *See* PX_2-0200.36–37, 39. And a 1978 tolling agreement between NL and Trojan
6 indicates that Trojan contracted to send very large amounts of lead-based materials to
7 the Vernon Plant. *See* PX_2-0052; *see also* Ganster Depo. at 56:20–61:20. However,
8 Mr. Simpson’s cross-examination made clear that his additional, belated, and
9 undisclosed analysis accounts for only a thin sliver of Trojan’s pre-1988 shipments:
10 the vanishingly small number of shipments for which shipping records have survived
11 to this day. *See* Trial Tr. Day 3 (afternoon) at 46:3–48:24 (“I’m basing my analysis on
12 the documents that I have been provided.”). Mr. Simpson’s skewed analysis violates
13 *Burlington and Pakootas IV*, which bars a defendant from arbitrarily ignoring some
14 part of their causal contribution. *See United States v. Atlas Lederer Co.*, No. C-3-91-
15 309, 2003 WL 27397078, at *2–7 (S.D. Ohio Sept. 2, 2003) (rejecting a divisibility
16 analysis based on a spreadsheet “developed by using all information that was
17 available” but that was “nothing more than a ‘best guess,’ an approximation of the
18 amount or volume of waste each PRP contributed to the [] Site,” given the existence
19 of shipping invoices for only 5 of 35 relevant years).

20 Put differently, Mr. Simpson admits there are gaps in the record but attempts to
21 wave them away. However, “any hardship due to lack of evidence” must be borne by
22 Trojan, not Plaintiffs or any other party. *See Pakootas IV*, 905 F.3d at 590 (quotations
23 omitted).⁶⁵

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27 ⁶⁵ *See also O’Neil*, 883 F.2d at 182 (where a portion of the contamination could not
28 be traced to a particular defendant, the defendants, “not the government, had the
burden to account for all of this uncertainty”).

F. Dr. Cutler, Whose Opinions the Court Has Already Partly Rejected, Offers Nothing Resembling an Apportionment Analysis.

As explained, Dr. Cutler—an expert for the Other Arrangers (KBI, Oregon Tool, Ramcar, and Trojan)—offers only the limited opinions that: (1) subsurface contamination at the Vernon Plant stopped after June 1986, making the Vernon Plant’s subsurface contamination divisible from its surface contamination; (2) the Plant’s TCE and other VOC contamination is distinct from metals contamination. *See* ECF No. 883 (Cutler Decl.) ¶ 3(b)–(c).

Dr. Cutler’s analysis is not useful because he offers nothing resembling a divisibility opinion that accounts for the entirety of the contamination at issue here, or accounts for each cause of it. At trial, Dr. Cutler freely admitted that he is not offering apportionment opinions about surface contamination at the Vernon Plant or about Industrial Area contamination. *See* Trial Tr. Day 3 (afternoon) at 12:9–14, 13:17–22. To the extent he is opining about heavy metals and TCE in the subsurface, Dr. Cutler also admitted he is “not offering any opinions about apportioning a percentage of responsibility with respect to the subsurface metals or VOC contamination.” *See id.* at 10:23–11:1.

Nor does Dr. Cutler justify his unstated assumption that certain subsets of “the entirety of contamination,” *Pakootas IV*, 905 F.3d at 592, should be regarded as separate and distinct sub-harms. For reasons discussed elsewhere in this brief, no Defendant has met their burden to show that the Vernon Plant and the Industrial Area should be sliced and diced into multiple pieces for apportionment purposes.

And to the extent Dr. Cutler attempts to absolve his clients of some of the contamination at the Vernon Plant, he is wrong. In effect, Dr. Cutler’s first opinion assumes that the Other Arrangers only sent materials to the Vernon Plant after June 1986, and attempts to absolve his clients of liability for the Plant’s subsurface contamination by showing that the movement of contamination from the surface to the subsurface stopped after 1986. But the Court has already addressed and rejected

1 Dr. Cutler’s first opinion and accepted Plaintiffs’ expert Dr. Laton’s testimony to the
2 contrary. *See* ECF No. 854 at 2 (“Defendants did not meet their burden in showing
3 that all releases to the subsurface stopped after 1986.”); ECF No. 741-1 (Phase II
4 Laton Decl.) ¶¶ 28, 112–13. Moreover, KBI and Trojan have admitted to sending
5 hazardous substances to the Vernon Plant before 1986.⁶⁶

6 Dr. Cutler’s second opinion rests on the undisputed fact that KBI, Oregon Tool,
7 Ramcar, and Trojan did not ship TCE to the Vernon Plant. He opines that because
8 subsurface TCE contamination is distinct from subsurface metals contamination, his
9 clients should not be held liable for subsurface TCE contamination. But Dr. Cutler’s
10 opinion that TCE contamination is distinct from metals contamination fails for the
11 same reasons as Dr. Robrock’s similar opinion. *See supra* Section IV.D.

12 In short, Dr. Cutler’s analysis does not meet the completeness requirements
13 imposed by *Pakootas IV* and *Burlington*. Nor does he show the existence of distinct
14 sub-harms. Even if the Court were to entertain his limited apportionment theories, he
15 is wrong in multiple respects. Dr. Cutler’s opinion, simply put, is not very helpful.

16 **G. No Expert Accounts for All Industrial Area Contamination.**

17 As discussed, no expert has accounted for all Industrial Area contamination,
18 which remains incompletely understood. Defendants therefore fail to meet their
19 burden on divisibility.

20 Here, the Court has already held—based on undisputed evidence—that the
21 Industrial Area was contaminated by airborne lead emissions from the Vernon Plant.
22 *See* ECF No. 482 at 1, 63. Likewise, it is undisputed that sampling of soils in the
23 Industrial Area, including properties that are not adjacent to the Vernon Plant, has
24 revealed high lead levels in soil. *See* ECF No. 895-3 (Laton Decl.) ¶¶ 31–34 (prior
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26 ⁶⁶ *See* ECF No. 693 (Johnson Decl.) ¶ 8 (KBI’s witness’s admissions that the
27 company’s shipments had started by 1985); DX_2-0080 at 53–61 (Trojan invoices
28 with the Vernon Plant in the 1970s); Phase II Trial Tr. Day 2 (May 31, 2023) at
112:5–7.

1 Industrial Area soil sampling documented at PX059 detected high lead levels). This
2 sampling did not just include the surface, but also involved soil cores reaching below
3 the surface. *See id.* ¶ 31 (“Samples were collected at depths . . .”). It included
4 properties in the Industrial Area that were geographically removed from the Vernon
5 Plant.⁶⁷ Moreover, it is undisputed that Plaintiffs have incurred oversight and
6 investigation costs because of Industrial Area contamination. *See* ECF No. 714-7
7 (Phase II Ruttan Decl.) ¶¶ 22–26 (describing these costs); ECF No. 854 at 2 (Court’s
8 order finding release causation satisfied in the Industrial Area).

9 The Industrial Area is therefore part of the entirety of the harm for
10 apportionment purposes. So, Defendants bear the burden of characterizing the
11 contamination in the Industrial Area and devising a way to apportion it. *See City of W.*
12 *Sacramento*, 2020 WL 5545272, at *6 (rejecting an apportionment analysis that did
13 not describe how “the contamination extends beyond the property line” and account
14 for that contamination). However, Defendants have not met that burden.

15 Only defense experts Dr. Davis and Mr. McGinnis address the Industrial Area
16 *at all*. And, as discussed, Dr. Davis and Mr. McGinnis ignore the Industrial Area’s
17 soil contamination. *See supra* Section III.A.1.⁶⁸ To excuse their failure to account for
18 Industrial Area soil contamination, Dr. Davis and Mr. McGinnis summarily declared
19

20 ⁶⁷ *See* PX059.00021 (explaining that “[p]roperties subject to ground dust sampling”
21 were soil-sampled where there were pervious areas, with samples taken from the
22 surface to a depth of 3 feet); PX059.000017 (noting that the ground dust sampling
23 took place in the “Bandini Boulevard Sampling Area,” “North Sampling Area,” and
24 “South Sampling Area”); PX_2-0032.13 (depicting the extent of these sampling
areas, which include areas distant from the Vernon Plant).

25 ⁶⁸ Namely, Dr. Davis offers apportionment opinions in the Industrial Area for only
26 hardscapes (i.e., buildings and pavement), subsurface contamination at two
27 properties, and groundwater. *See* ECF No. 889 ¶¶ 232–54. Likewise, Mr. McGinnis
28 admitted his analysis did not address soil contamination in the Industrial Area. *See*
Trial Tr. Day 1 at 105:16–107:1 (Mr. McGinnis’s testimony that he apportioned only
contamination on hardscapes, and not soil, in the Industrial Area).

at trial that any Industrial Area soil contamination has washed away or been cleaned up. These arguments lack merit.

Recall that before the Phase I trial, both NL and GEI embraced a “geostatistical” analysis of Industrial Area soil contamination conducted by Dr. Rouhani. *See* ECF No. 361 at 3–4 (joint Phase I pretrial brief joined by NL and GEI). Dr. Rouhani produced the following map based on recent soil contamination data showing that lead emissions from the Vernon Plant affected Industrial Area soils:

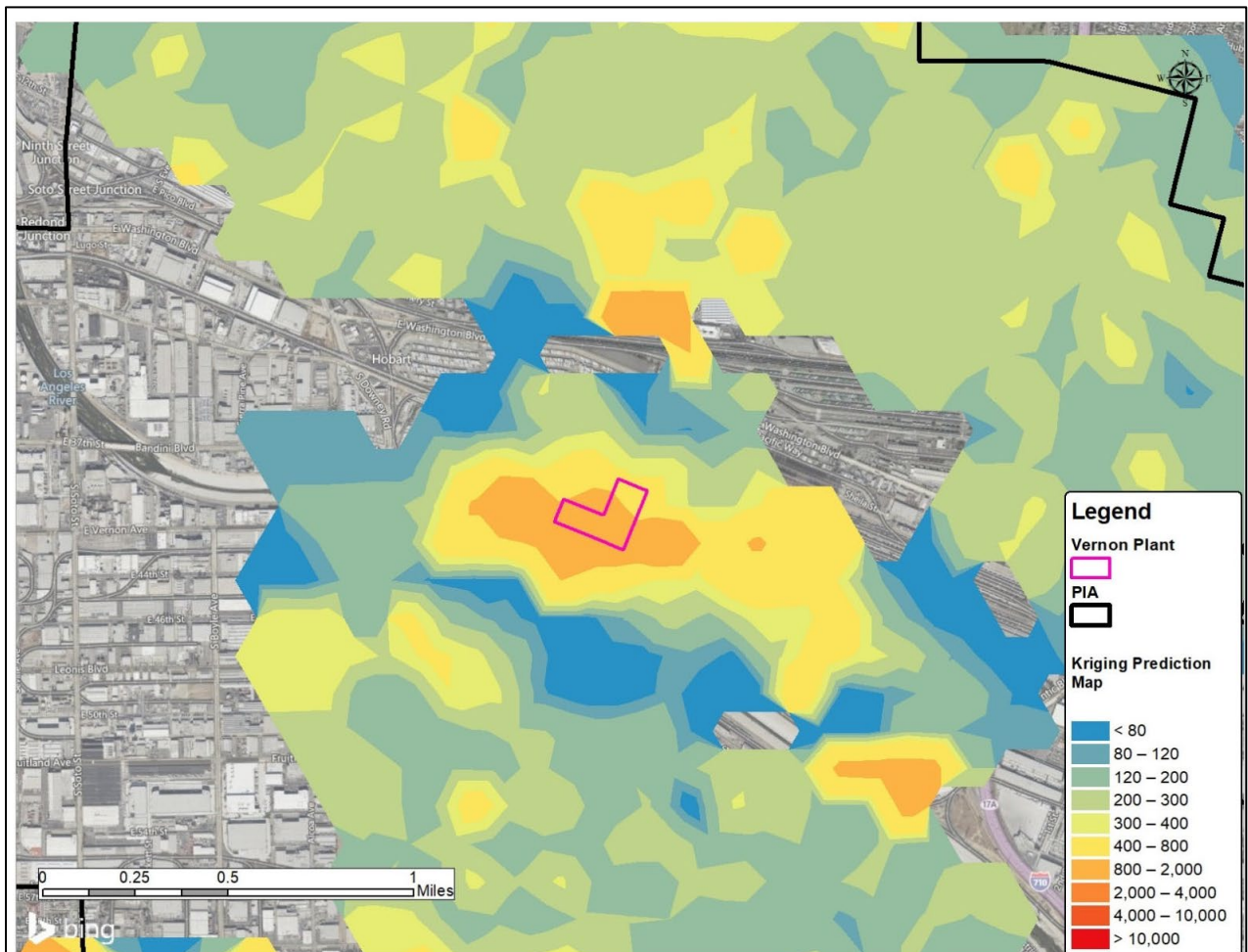


Figure 7b. Kriging Predicted Map of Surface Soil Lead Concentrations (mg/kg) Zoomed Over the Industrial Area Surrounding the Vernon Plant

See ECF No. 352 at 39.

Dr. Rouhani testified based on this map and associated data that emissions from the Vernon Plant had impacted only the Industrial Area’s soils, and no farther away. *See generally id.* Having advanced this position, NL and GEI are judicially estopped

1 from now taking the inconsistent position that any Industrial Area soil lead
2 contamination caused by the Vernon Plant has washed away or been cleaned up. *See*
3 *Hamilton v. State Farm Fire & Cas. Co.*, 270 F.3d 778, 782 (9th Cir. 2001).

4 In any event, Dr. Davis's and Mr. McGinnis's opinions about a cleanup or
5 washing away of Industrial Area soil contamination do not stand up to scrutiny. Dr.
6 Davis clarified at trial that his opinions about an Industrial Area soil cleanup were
7 limited to tree wells (the exposed areas of soil where trees are planted on sidewalks or
8 streets), and thus did not cover all subsurface soil contamination. *See* Trial Tr. Day 3
9 (morning) at 60:7–14; *see also* PX059 §§ 3.2 and 3.3.4 (distinguishing between lead
10 contamination in tree wells and subsurface soils). And his theory about Industrial Area
11 soil contamination having washed away unraveled on cross-examination. Dr. Davis
12 showed a distinct lack of understanding of Industrial Area sampling that showed high
13 lead levels in the shallow *subsurface* at many properties. *See* Trial Tr. Day 3 (morning)
14 at 79:5–80:12. He conceded that Industrial Area soil lead contamination in the
15 *subsurface* would not have washed away. *See id.* at 80:13–81:2.

16 Likewise, Mr. McGinnis opined that Industrial Area soil contamination might
17 have been cleaned up or washed away by erosion. *See* ECF No. 897 (McGinnis Decl.)
18 ¶ 151; Trial Tr. Day 2 (morning) at 39:18–40:3. But Mr. McGinnis admitted at trial
19 that he was not offering opinions about Industrial Area soil contamination, that he
20 “didn’t analyze the extent to which erosion would occur,” and that erosion would be
21 controlled by “very specific circumstances to [] particular area[s] of soil.” *See* Trial
22 Tr. Day 2 (afternoon) at 26:23–27:11. For example, Mr. McGinnis admitted that the
23 persistence (and susceptibility to washing away) of Industrial Area soil lead
24 contamination caused by the Vernon Plant’s airborne lead emissions would depend
25 on factors including the presence of soil, and whether soil was surrounded by curbs.
26 *See id.* at 27:12–16.

27 Dr. Davis’s and Mr. McGinnis’s assertions that *cleaning activities* would have
28 addressed any Industrial Area soil contamination is especially unfounded given the

1 highly limited nature of any cleaning activities that have occurred. The only
2 documented soil removal activities occurred in 2009 and 2014. *See* PX_2-0016.7–8.
3 The soil removal in 2009, which appears to be the basis of Dr. Davis’s testimony, was
4 limited to 43 tree wells along Bandini Boulevard (the street just south of the Vernon
5 Plant). *See* PX_2-0016.8. The soil removal in 2014 was limited to the cleaning of five
6 locations where soil samples had previously been collected. *See* PX_2-0016.8; *see*
7 *also* PX_2-0016.23–24 (maps depicting the very limited cleaning areas, which are
8 numbered as “CP-2,” “500 NE-3,” “500 NE-5,” “500 NW-7,” and “4500 SE7”). These
9 very limited cleaning activities in the Industrial Area do not support Dr. Davis and
10 Mr. McGinnis’s theories that Industrial Area soil contamination has been cleaned up.

11 Yet again, Dr. Davis’s and Mr. McGinnis’s opinions about Industrial Area soil
12 contamination are akin to the unfounded “flushing theory” rejected in *Vertac*
13 *Chemicals Corp.*, 364 F. Supp. 2d at 952. Their “theory remains just that—a theory.
14 It has not been subjected to scientific testing and validation.” *Id.* No party meets their
15 burden to account for Industrial Area soil contamination.

16 **H. No Defendant Meets Their Burden to Show the Divisibility of**
17 **Contamination Caused by Federally Permitted Releases.**

18 The federally permitted release defense, which the Court considered in Phase
19 II, is subject to a divisibility showing whereby Defendants (other than Clarios and NL,
20 who have waived the defense) must prove that the contamination caused by federally
21 permitted releases is divisible from the contamination caused by all other releases.
22 Defendants have not attempted to make this showing, so their defense fails.

23 The federally permitted release defense limits Plaintiffs from recovering
24 “response costs” only to the extent the relevant Defendants can prove they “result[ed]
25 from a federally permitted release.” 42 U.S.C. § 9607(j). Defendants bear the burden
26 of showing not only “which releases are federally permitted,” but also “what portion
27 of [Plaintiffs’] damages are allocable to the federally permitted releases.” *United*
28 *States v. Shell Oil Co.*, No. CV 91-0589-RJK, 1992 WL 144296 at *6 (C.D. Cal. Jan.

1 16, 1992); *accord Lincoln Props., Ltd. v. Higgins*, No. CIV. S-91-760DFL/GGH,
2 1993 WL 217429, at *22 (E.D. Cal. Jan. 21, 1993) (similar). The Defendants that have
3 pressed this defense must prove that the contamination caused by federally permitted
4 airborne releases is divisible from the contamination caused by non-federally
5 permitted releases, both airborne and non-airborne. *United States v. Iron Mountain*
6 *Mines, Inc.*, 812 F. Supp. 1528, 1541 (E.D. Cal. 1992) (divisibility is “an essential
7 element of [the] defense”).

8 No Defendant has met this burden. For example, consider GEI and the releases
9 of its predecessor Gould. During Gould’s ownership period, the Plant continued to
10 release hazardous substances to the environment through many pathways—just as it
11 had during the rest of its operational history. Many such releases were not federally
12 permitted. For example, a 1986 environmental assessment that relied on interviews of
13 longtime Plant workers found that “Acid Spills” in a West Yard “Battery Storage
14 Area” had continued until 1982, and “Acid Spills” in a South Yard “Battery Separation
15 Building” had continued until 1981. PX_3-0054.7. Gould also continued NL’s
16 practice of using and spilling TCE in the South Yard. *See* ECF No. 895-3 (Laton Decl.)
17 ¶¶ 27–30; ECF No. 897 (McGinnis Decl.) ¶¶ 186–87 (GEI’s expert’s concession that
18 Gould continued to use TCE for some time after buying the Vernon Plant). The
19 regional water board cited Gould for failing to collect and treat rainwater runoff from
20 the Plant. *See* ECF No. 895-4 (Quivik Decl.) ¶ 16; PX_2-0077.2. This runoff was
21 highly contaminated with lead. *See* PX_2-0123.6 (1977 rainwater runoff sample
22 contained 212 mg/L lead); DX_2-026 (1979 rainwater runoff sample contained 42.6
23 mg/L lead). The 1996 report prepared for GNB based on interviews with Vernon Plant
24 employees corroborates that Gould used the West Yard to house piles of junk batteries,
25 slag, spent metal drums, and other materials, and that these piles likely discharged
26 hazardous substances into the environment. *See* DX_2-01534 at 4-9, 4-12, 4-15 to 4-
27 16. Gould also continued to operate an aluminum smelting operation at the Vernon
28 Plant that likely released hazardous substances to the environment. *Id.* at 4-13. And

1 Gould continued to operate the old, dirty South Yard smelter while it constructed the
2 new North Yard smelter, likely releasing even more pollution. *Id.* at 4-26 to 4-28.

3 It is GEI's burden to perform an apportionment analysis that measures how
4 much of the totality of the contamination was caused by these non-federally permitted
5 releases, and how much was caused by federally permitted releases. GEI has not done
6 so. Nor have the other Defendants that assert a federally permitted release defense.

7 **V. Conclusion**

8 The Court should reject each Defendant's divisibility defense. The Court may
9 reconsider defense experts' opinions at the equitable allocation phase as needed.

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Respectfully submitted,

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