

IN THE DISTRICT COURT OF THE VIRGIN ISLANDS  
DIVISION OF ST. CROIX

COMMISSIONER OF THE DEPARTMENT	:	CIVIL ACTION
OF PLANNING AND NATURAL	:	
RESOURCES, ALICIA V. BARNES,	:	
et al.	:	
	:	
	:	
v.	:	
	:	
CENTURY ALUMINUM COMPANY,	:	
et al.	:	NO. 05-62

MEMORANDUM

Bartle, J.

June 28, 2013

Plaintiffs, Commissioner of the United States Virgin Islands Department of Planning and Natural Resources, Alicia V. Barnes (the "Commissioner"), and the Government of the Virgin Islands (together with the Commissioner, the "Government"), filed this multi-count environmental lawsuit against entities who at various times owned portions of an industrial area in Kingshill, St. Croix on which both an alumina refinery and an oil refinery have operated. These defendants were Century Aluminum Company ("Century"), Virgin Islands Alumina Corporation ("VIALCO"), St. Croix Alumina, LLC ("SCA"), Lockheed Martin Corporation ("Lockheed"), Alcoa World Alumina, LLC, ("Alcoa"), St. Croix Renaissance Group, LLLP ("SCRG"), HOVENSA, LLC ("HOVENSA") and Hess Oil Virgin Islands Corporation ("HOVIC").<sup>1</sup> We have

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1. The Virgin Islands Port Authority and the Virgin Islands Waste Management Authority are third-party defendants sued by  
(continued...)

previously approved a settlement between the Government and SCA, Alcoa, and SCRG and granted summary judgment in favor of Century. Accordingly, the remaining defendants are VIALCO, Lockheed, HOVENSA, and HOVIC.

There are a number of pending motions under Daubert v. Merrel Dow Pharmaceuticals, 509 U.S. 579 (1993). We will now consider the motion of Lockheed to exclude the opinion testimony of Dr. Bradley Sample ("Dr. Sample") and its motion to strike the declaration of Dr. Sample filed on December 14, 2012 and incorporated memorandum of law.

I.

The court has a "gatekeeping" function in connection with expert testimony. See Gen. Elec. Co., et al. v. Joiner, 522 U.S. 136, 142 (1997); see also Daubert, 509 U.S. at 589. Rule 702 of the Federal Rules of Evidence provides:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

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1.(...continued)  
defendants VIALCO and Lockheed and former defendant Century for contribution.

As our Court of Appeals has repeatedly noted, Rule 702 embodies three requirements: qualification, reliability, and fit. Pineda v. Ford Motor Co., 520 F.3d 237, 244 (3d Cir. 2008). Lockheed does not contend that Dr. Sample is unqualified.

To determine reliability, we focus not on the expert's conclusion but on whether that conclusion is "based on the methods and procedures of science rather than on subjective belief or unsupported speculation." Schneider, 320 F.3d at 404 (internal quotation marks omitted). Our analysis may include such factors as:

- (1) whether a method consists of a testable hypothesis;
- (2) whether the method has been subject to peer review;
- (3) the known or potential rate of error;
- (4) the existence and maintenance of standards controlling the technique's operation;
- (5) whether the method is generally accepted;
- (6) the relationship of the technique to methods which have been established to be reliable;
- (7) the qualifications of the expert witness testifying based on the methodology; and
- (8) the non-judicial uses to which the method has been put.

Pineda, 520 F.3d at 247-48.

"[T]he test of reliability is flexible" and this court possesses a broad latitude in determining reliability. Kumho Tire Co. v. Carmichael, 526 U.S. 137, 141-42 (1999). To be reliable under Daubert, a party need not prove that his or her expert's opinion is "correct." Paoli, 35 F.3d at 744. Instead:

As long as an expert's scientific testimony rests upon good grounds, based on what is known, it should be tested by the adversary process—competing expert testimony and active cross-examination—rather than excluded from

jurors' scrutiny for fear that they will not grasp its complexities or satisfactorily weigh its inadequacies.

United States v. Mitchell, 365 F.3d 215, 244 (3d Cir. 2004) (quoting Ruiz-Troche v. Pepsi Cola Bottling Co., 161 F.3d 77, 85 (1st Cir. 1998)).

As for "fit," expert testimony must also "assist the trier of fact to understand the evidence or to determine a fact in issue." Fed. R. Evid. 702. Thus, to "fit," such evidence must bear some relation to the "particular disputed factual issues in the case." United States v. Downing, 753 F.2d 1224, 1237 (3d Cir. 1985). Accordingly, this factor has been described as one of relevance. Daubert, 509 U.S. at 591; Paoli, 35 F.3d at 745 & n.13.

## II.

Dr. Sample was retained by the plaintiffs in order "to evaluate ecotoxicity and ecological risks associated with contamination by hazardous substances from bauxite ore processing at the former St. Croix Alumina facility in the U.S. Virgin Islands." Dr. Sample holds a Ph.D. degree in wildlife ecology from West Virginia University and a Masters degree in entomology from the University of Delaware. He is an author of more than 100 peer-reviewed publications and presentations in ecotoxicology and ecological risk assessment.

Dr. Sample collected eight surface water samples, nine sediment samples, and thirteen soil samples from multiple locations around the alumina refinery site. Bioassays were

performed by exposing mysid shrimp, marine amphipods, earthworms, and perennial ryegrass to the samples. Bioassays are scientific experiments which are typically conducted to measure the effects of a substance, such as a toxin, on a living organism. Based on the bioassay results, Dr. Sample's conclusions, in brief, are:

[T]he results of the site-specific bioassays clearly show that 1) surface water, sediment, and soils at the former St. Croix Alumina facility are toxic; 2) analytes associated with bauxite ore processing are clearly associated with surface water and soil toxicity; and 3) both observed and predicted effects in surface water, sediment, and soil are spatially associated with the presence of red mud and other onsite wastes.

### III.

We will first address the motion of Lockheed to exclude Dr. Sample's opinion testimony. It is Lockheed's main argument that Dr. Sample's methodology was unreliable because he took samples from a few of the most impacted areas of the alumina refinery site while ignoring the less impacted areas and extrapolated the results of these samples to draw conclusions about the entire site. Dr. Sample purposefully selected sampling locations with high concentrations of contaminants so he could gather information about the toxicity when the samples were used in the bioassays. He was not attempting to characterize the entire site, but rather he was performing a risk assessment. A risk assessment allowed him to examine how high concentrations of contaminants affected certain species of organisms. His goal was to determine whether a lack of vegetation was attributable to red

mud at the site and, if so, what in the red mud contributed to that toxicity. With this information, he sought to determine the concentration of toxicity required to have an effect on the selected species. This type of risk assessment is the same methodology Dr. Sample applies for the EPA. His methodology was reliable under Daubert for these goals. If Lockheed seeks to challenge the methodology being used in this context, it may do so on cross-examination.

Lockheed also argues that Dr. Sample ignored evidence of impacts from other sources of contamination. It provides two examples. First, one sample was taken in the West Ditch across from the Anguilla Municipal Landfill, and second, background sediment samples were taken in the influence area of the Anguilla landfills. With regard to the West Ditch sample, Dr. Sample noted that red mud had flowed there. As for the background sediment samples, these samples were selected by Weston Solutions on behalf of the EPA, not by Dr. Sample. No bioassays were run on these samples. Rather, they were used as points of comparison to the samples taken by Dr. Sample. He has agreed with Lockheed that the location near the landfills was problematic and notes that in his report. Accordingly, Dr. Sample did not ignore evidence of impacts from other sources of contamination, and there is no reason to exclude his testimony.

Lockheed maintains that Dr. Sample incorrectly called his methodology the Apparent Effects Threshold ("AET"). An AET measures the level at which certain analytes are toxic to

laboratory species, that is, it determines the highest level of toxicity at which there are no effects on the species. Dr. Sample agrees that he was imprecise when he referred to his work as using an AET. His methodology, although comparable to an AET, used the lowest level of toxicity at which effects on the species were always present in order to derive site-specific effects thresholds. This methodology has been used by the EPA. We are convinced that even though Dr. Sample employed the incorrect title for his work, his methodology was reliable under Daubert.

Lockheed further contends that Dr. Sample incorrectly concluded that aluminum contributed to toxicity. Dr. Sample based this conclusion on a peer reviewed paper which Lockheed contends was outdated. However, the plaintiffs explain that this paper is the only study that looks at aluminum coexisting with a high pH and sodium in red mud, which is the situation here. Lockheed is welcome, of course, to contest this point on cross-examination, but it does not make Dr. Sample's testimony unreliable under Daubert.

Lockheed's remaining arguments are without merit. Accordingly, we will deny its motion to exclude the opinion testimony of Dr. Sample.

#### IV.

Lockheed has also moved to strike a late-filed declaration of Dr. Sample under Rule 37(c)(1) of the Federal Rules of Civil Procedure, which provides:

If a party fails to provide information or identify a witness as required by Rule 26(a) or (e), the party is not allowed to use that information or witness to supply evidence on a motion, at a hearing, or at a trial, unless the failure was substantially justified or is harmless.

Fed. R. Civ. P. 37(c)(1). Dr. Sample was named in the plaintiffs' original Rule 26 disclosures as a person with discoverable information and provided an expert report during discovery. He then provided the declaration in issue as an exhibit to the plaintiffs' brief in response to the defendants' motions under Daubert to exclude his testimony. Rule 26(e) of the Federal Rules of Civil Procedure provides:

(1) In General. A party who has made a disclosure under Rule 26(a) ... must supplement or correct its disclosure or response:

(A) in a timely manner if the party learns that in some material respect the disclosure or response is incomplete or incorrect, and if the additional or corrective information has not otherwise been made known to the other parties during the discovery process or in writing; or

(B) as ordered by the court.

(2) Expert Witness. For an expert whose report must be disclosed under Rule 26(a)(2)(B), the party's duty to supplement extends both to information included in the report and to information given during the expert's deposition. Any additions or changes to this information must be disclosed by the time the party's pretrial disclosures under Rule 26(a)(3) are due.

The court must consider four factors before striking testimony due to a party's failure to comply with the discovery



rules. We examine the "prejudice or surprise" to the party against which the evidence would be admitted, the ability to cure that prejudice, "the extent to which allowing the evidence would disrupt the orderly and efficient trial of the case or other cases in the court," and "bad faith or wilfulness" on the part of the disclosing party in "failing to comply with a court order or discovery obligation." Nicholas v. Pa. State Univ., 227 F.3d 133, 148 (3d Cir. 2000). In applying these factors, we may consider the importance to the disclosing party of the proposed witnesses' testimony. Konstantopoulos v. Westvaco Corp., 112 F.3d 710, 719 (3d Cir. 1997).

Based on the above factors, we will not strike Dr. Sample's declaration. There is no surprise or prejudice to any of the defendants if Dr. Sample's declaration is not stricken. Dr. Sample provided an expert report and was deposed on his opinions. The declaration is a clarification of those opinions in response to the defendants' Daubert motions. Dr. Sample does not change any of his opinions in the declaration or provide any new opinions. Lockheed had notice of Dr. Sample's methodology, the facts of the case, and his opinions. This is sufficient under the circumstances to avoid surprise or prejudice.

The declaration also will not "disrupt the orderly and efficient trial of the case or other cases in the court." It is merely in response to one of the many motions filed under Daubert that the court is still addressing. It changes nothing in terms of the schedule for trial. Lockheed has not provided any

evidence to show that the plaintiffs filed Dr. Sample's declaration in bad faith. Dr. Sample's testimony is important for the plaintiffs at trial. Accordingly, we will not strike it.