IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF WEST VIRGINIA

BECKLEY DIVISION

OHIO VALLEY ENVIRONMENTAL COALITION, INC.,
WEST VIRGINIA HIGHLANDS CONSERVANCY, INC.,
COAL RIVER MOUNTAIN WATCH,
and SIERRA CLUB,

Plaintiffs,

v. CIVIL ACTION NO. 5:12-1464

MARFORK COAL COMPANY, INC., and
INDEPENDENCE COAL COMPANY, INC.,

Defendants.

MEMORANDUM OPINION AND ORDER

On April 22, 2014, a trial on liability issues only[1] was held in this case between Plaintiff Coal River Mountain Watch ("CRMW") and Defendant Marfork Coal Company, Inc. ("Marfork").[2] Plaintiff filed this case pursuant to the citizen suit provisions of the Federal Water Pollution Control Act ("Clean Water Act") and the Surface Mining Control and Reclamation Act. Plaintiff alleges that Defendant violated these statutes by discharging excessive amounts of selenium into the waters of West Virginia. The dispute comes down to whether Plaintiff's post-Complaint sampling from October 2012 and December 2012 proves a violation by Defendant

[1] Pursuant to the Court's August 8, 2012, Scheduling Order, this case is bifurcated into two phases: Phase I is dedicated to the resolution of "all jurisdictional and/or liability issues," and Phase II, if necessary, is dedicated to the resolution of "any injunctive relief and civil penalty assessment." Scheduling Order at 1, Aug. 8, 2012, ECF No. 18. In its August 22, 2013, Memorandum Opinion and Order, the Court found that Plaintiff CRMW has constitutional standing to assert its claims against Marfork and has satisfied the Clean Water Act's jurisdictional requirements. Mem. Op. & Order at 12, 34, Aug. 22, 2013, ECF No. 98. Thus, only liability issues remain to be resolved in Phase I.

[2] In its August 22, 2013, Memorandum Opinion and Order, the Court entered judgment in favor of Marfork as to the claims of Plaintiffs Ohio Valley Environmental Coalition, Inc., West Virginia Highlands Conservancy, Inc., and Sierra Club, based on those plaintiffs' lack of constitutional standing. Mem. Op. & Order at 12, Aug. 22, 2013. CRMW is thus the only plaintiff remaining in the pending action against Marfork.

of West Virginia's water quality standards by showing that Defendant exceeded the standards' chronic selenium limitation of 5 parts per billion ("ppb").[3] The Court **FINDS** that both Plaintiff's sampling from October 2012 and its sampling from December 2012 prove violations by Defendant of West Virginia's water quality standards—and, thus, Defendant's permits—by exceeding the standards' chronic selenium limitation of 5 ppb.

I. Sampling

Defendant owns and operates the Brushy Fork Slurry Impoundment in Raleigh County, West Virginia. The impoundment's Outfall 001 discharges downhill, via a spillway, directly into what remains of the stream known as Brushy Fork, which at this point is little more than a pond. Pl.'s Trial Exs. 2-5. Brushy Fork is comprised of the water between the end of the spillway and several culverts approximately 20 to 30 feet away. Id. The culverts carry water from Little Marsh Fork, a stream which continues to flow downstream through the culverts. Id. Also at the culverts, the water from Brushy Fork joins with the water in Little Marsh Fork. Id. The sole source of the water in Brushy Fork is the discharge from Outfall 001.[4] Id.

In October 2012, Plaintiff's hired sampler, Meghan Betcher of Downstream Strategies, conducted sampling at the Brushy Fork Slurry Impoundment over four consecutive days, October 2 through October 5, each day taking one sample directly from the bottom of the Outfall 001 spillway (labeled, consecutively, BF-1s, BF-1-2, BF-1-3, and BF-1-4) and one sample, due to confusion, from Little Marsh Fork—well past the culverts—(labeled, consecutively, DBF-1, DBF-2, DBF-3, and DBF-4[5]). Pl.'s Trial Ex. 7. No samples were taken from Brushy Fork during

[3] See W. Va. Code R. § 47-2, App'x E, tbl. 1. The chronic limitation is a "four-day average concentration not to be exceeded more than once every three years on the average." Id. n.2.

[4] During trial, Defendant attempted to argue, without any evidentiary support, that perhaps there was another unnamed and unknown source for Brushy Fork. The Court finds such speculation unconvincing and, instead, credits the testimony of Plaintiff's sampler, Meghan Betcher, that the discharge from Outfall 001 is the sole source of water in Brushy Fork.

[5] Ms. Betcher testified that, on the first day of sampling, October 2, 2012, she had been told by Nick Williams of

this time period. The lab results from Ms. Betcher's Outfall 001 samples create a four-day average of 6.875 ppb, which exceeds the chronic selenium limitation standard. See Pl.'s Trial Ex. 10. However, the average of the results from Ms. Betcher's Little Marsh Fork samples, 4.6 ppb, does not violate the standard. See id.

During this four-day sampling trip, Defendant's hired sampler, Jimmy Bennett of Research Environmental & Industrial Consultants, Inc., ("REIC") took a sample from each location where Ms. Betcher took a sample. The Outfall 001 samples were all labeled "outfall 001 DBF instream," but he delivered each sample to REIC's lab on the day it was collected. Def.'s Trial Ex. 1. The Little Marsh Fork samples were all labeled "outfall 001 DBF downstream." Id. These were also delivered daily to the lab. Id. Like the lab results from Ms. Betcher's samples, the results from Mr. Bennett's Outfall 001 samples create a four-day average, 6.5 ppb, which exceeds the chronic selenium limitation standard. See Def.'s Trial Ex. 3. Likewise, the average of the results from Mr. Bennett's Little Marsh Fork samples, 4.25 ppb, does not violate the standard. See id.

In December 2012, Ms. Betcher again conducted sampling at the Brushy Fork Slurry Impoundment—this time over six consecutive days, December 10 through December 15. Pl.'s Trial Ex. 15. Each day, she took one sample directly from the bottom of the Outfall 001 spillway (labeled, consecutively, 001-1, 001-2, 001-3, 001-4, 001-5, and 001-6), one sample from instream Brushy Fork—about 15 feet from the spillway—(labeled, consecutively, 001s-1, 001s-2, 001s-3, 001s-4, 001s-5, and 001s-6), and one sample from the same location in Little Marsh Fork that was sampled in October 2012 (labeled, consecutively, DBF-1, DBF-2, DBF-3, DBF-4, DBF-5, and

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Alpha Natural Resources—representing Defendant—that the Little Marsh Fork sampling location was the location in Brushy Fork where Defendant conducted routine selenium sampling. She relied upon his statement in believing, at the time, that she was sampling from Brushy Fork, so she labeled her samples "DBF" (Downstream Brushy Fork) accordingly.

DBF-6[6]). Id. Given that the December 2012 samples were taken over a period of six days, three different four-day averages can be computed from the lab results. The results from the Outfall 001 samples create, in order, four-day averages of 6.025 ppb, 5.9 ppb, and 5.9 ppb, all of which exceed the chronic selenium limitation standard. See Pl.'s Trial Ex. 18. The results from the Brushy Fork samples create, in order, four-day averages of 5.875 ppb, 5.775 ppb, and 5.875 ppb, all of which, again, exceed the chronic limitation standard. See id. As in October 2012, the four-day averages from the Little Marsh Fork sampling results—2.4 ppb, 2.425 ppb, and 2.425 ppb—do not violate the standard. See id.

During this six-day sampling trip, Mr. Bennett again took a sample from each location where Ms. Betcher took a sample. The Outfall 001 samples were all labeled "DBF Instream;" the Brushy Fork samples were all labeled "DBF Mid;" and the Little Marsh Fork samples were all labeled "DBF Downstream." Def.'s Trial Ex. 2. With the exception of December 12, 2012, Mr. Bennett personally delivered each sample to REIC's lab on the day it was collected; on December 12th, a REIC colleague who was at the site that day, Meghan Rexrode, delivered the sample to the lab. Id. Except for December 12, 2012, each of Mr. Bennett's samples—from both months—yields a similar result to the like sample of Ms. Betcher. See Pl.'s Trial Exs. 10, 11, 18; Def.'s Trial Exs. 3, 4. However, on December 12th, Ms. Betcher's Brushy Fork sample yielded 6.1 ppb while Mr. Bennett's yielded 1.6 ppb, and Ms. Betcher's Little Marsh Fork sample yielded 1.7 while Mr. Bennett's yielded 6.1 ppb. Due to this difference, only the results from Mr. Bennett's Outfall 001 samples create four-day averages—5.7 ppb, 5.65 ppb, and 5.475 ppb—which exceed the chronic

[6] Ms. Betcher testified that, near the end of her first day of sampling in December—December 10, 2012—Stephanie Morgan of Alpha Natural Resources—also representing Defendant—arrived and told her that her sampling location in Little Marsh Fork was incorrect and showed her Brushy Fork's true location. At that point, Ms. Betcher had already labeled the Little Marsh Fork sample "DBF-1," so she made a notation in her field notes, and to maintain consistency, she continued to label the subsequent day's Little Marsh Fork samples with the "DBF" acronym, though she described each "DBF" sample as having been taken from "Marsh Fork" and each "001s" sample as having been taken from "Brushy Fork."

selenium limitation standard. See Def.'s Trial Ex. 4; Pl.'s Trial Ex. 11. Unlike Ms. Betcher's results, the averages from Mr. Bennett's Brushy Fork sampling results—4.85 ppb, 4.575 ppb, and 4.525 ppb—do not violate the standard. See Def.'s Trial Ex. 4. Like Ms. Betcher's results, the averages from Mr. Bennett's Little Marsh Fork sampling results—3.375 ppb, 3.375 ppb, and 3.475 ppb—, though significantly higher than Ms. Betcher's averages, also do not violate the standard. See id.

Plaintiff's demonstrative, but unadmitted, Exhibits 12 and 19 list all of the sampling results—from both samplers—together by sampling month. Finding both exhibits useful and accurate, the Court hereby attaches them to and incorporates them into this Memorandum Opinion and Order as, respectively, Exhibits A and B.

II. Sampling from Outfall 001

First, Defendant argues that Plaintiff did not conduct instream sampling from Brushy Fork at all in October 2012; thus, it argues, Plaintiff cannot prove a violation by Defendant of West Virginia's water quality standards—and, therefore, Defendant's permits—during that month. Plaintiff argues that the sampling from the bottom of Outfall 001's spillway—right before the water hits Brushy Fork's surface—should suffice to show such a violation since Outfall 001 is the only source of water for Brushy Fork.

The Court agrees with Plaintiff and hereby **FINDS** that the water flowing from the end of Outfall 001's spillway, as the inception of Brushy Fork's water flow, effectively qualifies as the instream water flow of Brushy Fork. Thus, such sampling is sufficient to show violations by Defendant of the chronic selenium limitation of 5 ppb. As outlined above, all of the four-day averages from the Outfall 001 samples—in both October and December 2012 and by both samplers—reveal exceedances by Defendant of the 5 ppb selenium limitation. Hence, Plaintiff has

proven, by a preponderance of the evidence, that Defendant was in violation of West Virginia's water quality standards—and, consequently, its own permits—during both October 2012 and December 2012.

III. Sampling Error

As outlined above and as shown by Exhibit B to this Opinion, the results from Ms. Betcher's Brushy Fork sampling in December 2012 create three four-day averages, all of which reveal exceedances by Defendant of the 5 ppb selenium limitation. However, due to significantly different results between the two samplers for two out of three of the samples from December 12, 2012, Mr. Bennett's three Brushy Fork four-day averages all show no such exceedances.

Defendant claims that Ms. Betcher, being "confused" about which stream was which in the past, must have switched the sample bottles for Brushy Fork and Little Marsh Fork, such that Mr. Bennett's results most accurately portray the selenium concentrations in Brushy Fork that day. Additionally, in an attempt to attack Ms. Betcher's credibility and her precision as a sampler, Defendant attacks Ms. Betcher's instream sampling technique as poor—such that she may have accidentally allowed the preservative to escape the bottle—, points out that Ms. Betcher described the Little Marsh Fork samples as "Marsh Fork"—a much larger stream miles away— in her field notes, and draws attention to the fact that Ms. Betcher's samples were not analyzed by the lab until more than a week after they were collected. Alternatively, Defendant argues that the variability in the results between the two samples is complex, such that expert testimony would be required to ascertain what actually happened.

First, the Court notes that the discrepancy here—in the context of ten days' worth of data, with two to three samples, per sampler, taken every day—requires no expert testimony for its resolution. This is a simple fact-finding issue.

After reviewing all of the evidence in this case, the Court **FINDS** that Ms. Betcher's December 12, 2012, data from the Brushy Fork and Little Marsh Fork samples is accurate and that Mr. Bennett's like data is inaccurate. In fact, it is evident to the Court that Mr. Bennett's Brushy Fork and Little Marsh Fork samples were switched. The Court finds two patterns in the overall data which strongly support this conclusion. First, for each individual day, the results for both the Outfall 001 sample and the Brushy Fork sample, where available, are higher than the result for the Little Marsh Fork sample. See Exs. A, B. The sole exception to this pattern is found in Mr. Bennett's December 12, 2012, Brushy Fork and Little Marsh Fork samples; these two samples are clearly the outliers. See id. Second, looking at the December 2012 data from both samplers, the variation from day-to-day between a sample from one location on one day and from the same location on the next day is linked to the variation between each of the other samples on that first day and the same sample the next day. See Ex. B. The data for each sample is fairly consistent from day-to-day, except there is a clear dip in the values for all of the samples—with what appears to be a bottoming out number for Little Marsh Fork—on December 13, 2012. See id. Mr. Bennett's December 12, 2012, data—and only his data—deviate strongly from this pattern, showing a huge one-day drop from 7.1 ppb to 1.6 ppb in Brushy Fork and an extreme increase from 2.2 ppb to 6.1 ppb in Little Marsh Fork. See id. The lowest Brushy Fork value otherwise is 3.9 ppb, and the highest Little Marsh Fork value in December 2012 is otherwise 3.6 ppb. See Exs. A, B. Additionally, Mr. Bennett's December 12, 2012, Little Marsh Fork value is exactly the same as Ms. Betcher's Brushy Fork value for that day, 6.1 ppb, and his Brushy Fork value from the same day is only 0.1 ppb away from Ms. Betcher's Little Marsh Fork value for that day. See Ex. B.

In addition, circumstantial evidence supports the likely scenario that Mr. Bennett's Brushy Fork and Little Marsh Fork samples were accidentally switched. First, Ms. Betcher credibly

recalled that Mr. Bennett had pre-labeled his bottles during the December 2012 sampling trip, in violation of REIC's Standard Operating Procedures ("SOPs") and in what would also have been a violation of Downstream Strategies' SOPs. See Def.'s Trial Ex. 7. Such pre-labeling is frowned upon because it increases the chance of mistakenly putting a sample in the wrong bottle. Ms. Betcher specifically remembered that Mr. Bennett's bottles were pre-labeled because, she testified, it was cold during the December trip and labeling the bottles just before taking the samples was uncomfortable. She remembers noting that Mr. Bennett's bottles were pre-labeled because she was a bit envious, though she still thought that pre-labeling the bottles was a poor idea overall. Mr. Bennett's memory of the trip, as shown by his testimony and by his own admission, is poor; he ultimately admitted that it is possible that he pre-labeled the bottles, and he freely admitted that he sometimes deviates from REIC's SOPs when it is convenient to do so. For instance, he admitted that he does not always wear gloves when sampling if, for example, he forgets to bring the gloves.

Secondly, of all six of the December 2012 sampling days, December 12th was the only day on which REIC had two samplers, Mr. Bennett and Ms. Rexrode, on site. Mr. Bennett first stated that Ms. Rexrode was only observing; however, several of the notations in Mr. Bennett's field notebook for that day were in Ms. Rexrode's handwriting, and Ms. Rexrode was the sampler who signed the chain of custody form relinquishing the samples from that day to REIC's laboratory. See Def.'s Trial Exs. 2, 5. Mr. Bennett ultimately stated that his memory of the entire sampling trip—let alone December 12, 2012, in particular—was so poor that he was unable to testify regarding which person—he or Ms. Rexrode—took the samples that day. Having two samplers working in tandem in what appeared, from the notations in the field notebook, to be a piecemeal manner undoubtedly increased the opportunity for error that day.

Additionally, Ms. Betcher's samples underwent a timely quality control review which Mr. Bennett's samples did not. Mr. Bennett stated that he does not review lab results for the samples he collects for inconsistencies which might reveal errors—in fact, he was unsure who, if anyone, at REIC conducts such a review. Ms. Betcher, on the other hand, always conducts such a review as soon as the results are available, and she did so for both of her data sets in this case, finding no anomalies.

Finally, Defendant's critiques of Ms. Betcher's sampling during these trips are unconvincing. The Court does not credit Defendant's insinuation that, due to Ms. Betcher's instream sampling protocols, she may have lost some or all of the preservative out of the bottle back into the stream. As shown by the detail of her testimony, Ms. Betcher's memory of the sampling trips is very strong, and her approach to sampling is meticulous. Ms. Betcher stated that she is very careful to not allow any of the water which enters the bottle to overflow, thus containing the preservative. She also stated that none of the sampling bottles overflowed on these sampling trips and that, if they had, she would have gotten a new bottle and acquired a new sample. The Court credits her testimony.

The Court also finds unconvincing Defendant's insinuation that the lag time between when Ms. Betcher collected a sample and when the lab ran its test on the sample somehow compromised the sample. Ms. Betcher testified that, per Downstream Strategies' SOPs, she always places the samples on ice immediately upon returning to her car and that both sampling occasions were no different. During each of the two trips, she then kept the samples on ice until they were transferred to the lab, together, at the end of the sampling trip. Additionally, the preservative in the bottle is meant to keep the sample good for much longer than the little more than a week which passed in this instance, potentially for up to six months.

The Court finds Defendant's argument that Ms. Betcher was "confused" about which stream was which to be wholly unconvincing. Ms. Betcher clearly described the layout of the entire area where the sampling occurred and took copious notes and pictures. Though Ms. Betcher incorrectly sampled out of Little Marsh Fork, thinking that it was Brushy Fork, this was entirely due to the misdirection of Defendant's own representative. During the second trip, after the mistake was revealed by another of Defendant's representatives, Ms. Betcher documented the error and continued consistently and accurately sampling, taking notes, and taking pictures from each spot where she collected a sample.

Defendant also makes much of Ms. Betcher's misstatement in her December 2012 field notes that she was sampling from "Marsh Fork" instead of "Little Marsh Fork." If there had been both such streams in the immediate vicinity of the sampling locations, this could be a real issue. However, that was not the case here. Additionally, Defendant's representatives were present during all of Ms. Betcher's sampling, yet no evidence was presented that Ms. Betcher was, in fact, sampling from any stream other than those already discussed. Most importantly, the disparate names of the three relevant sampling sites—Outfall 001, Brushy Fork, and Little Marsh Fork—allow for none of naming confusion that Defendant insinuates occurred in this case.

As outlined above, all three of Ms. Betcher's Brushy Fork four-day averages from December 2012 reveal exceedances by Defendant of the 5 ppb chronic selenium limitation. Thus, Plaintiff has proven—through both Outfall 001 and Brushy Fork sampling results—, by a preponderance of the evidence, that Defendant was in violation of West Virginia's water quality standards—and, consequently, its permits—during December 2012.

IV. Conclusion

The Court **FINDS** that both Plaintiff's sampling from October 2012 and its sampling from December 2012 prove violations by Defendant of West Virginia's water quality standards—and, thus, Defendant's permits—by exceeding the standards' chronic selenium limitation of 5 ppb.

The Court **DIRECTS** the Clerk to send a copy of this written Opinion and Order to counsel of record and any unrepresented parties.

ENTER: April 24, 2014

ROBERT C. CHAMBERS, CHIEF JUDGE

SELENIUM CONCENTRATIONS MEASURED DURING OCTOBER 2012 FRCP 34 INSPECTION AND CALCULATED FOUR-DAY AVERAGES

Sampler	Sample Location	10/2/12	10/3/12	10/4/12	10/5/12	Average Selenium Concentration 10/2 to 10/5
Downstream Strategies	Outfall 001	4.1	7.2	7.8	8.4	6.875
Downstream Strategies	Little Marsh Fork, Instream	2.3	4.6	4.3	7.2	4.6

Sampler	Sample Location	10/2/12	10/3/12	10/4/12	10/5/12	Average Selenium Concentration 10/2 to 10/5
REIC	Outfall 001	4.4	7	7.2	7.4	6.5
REIC	Little Marsh Fork, Instream	2.4	4.4	3.8	6.4	4.25

ALL SELENIUM CONCENTRATIONS IN MICROGRAMS PER LITER

Exhibit A

SELENIUM CONCENTRATIONS MEASURED DURING DECEMBER 2012 FRCP 34 INSPECTION AND CALCULATED FOUR-DAY AVERAGES

Sampler	Sample Location	12/10/12	12/11/12	12/12/12	12/13/12	12/14/12	12/15/12	Average Selenium Concentration 12/10 to 12/13	Average Selenium Concentration 12/11 to 12/14	Average Selenium Concentration 12/12 to 12/15
Downstream Strategies	Outfall 001	6.6	6.6	7.1	3.8	6.1	6.6	6.025	5.9	5.9
Downstream Strategies	Brushy Fork, Instream	6.3	7.1	6.1	4	5.9	7.5	5.875	5.775	5.875
Downstream Strategies	Little Marsh Fork, Instream	3.5	2.6	1.7	1.8	3.6	2.6	2.4	2.425	2.425

Sampler	Sample Location	12/10/12	12/11/12	12/12/12	12/13/12	12/14/12	12/15/12	Average Selenium Concentration 12/10 to 12/13	Average Selenium Concentration 12/11 to 12/14	Average Selenium Concentration 12/12 to 12/15
REIC	Outfall 001	6.3	7.1	5.8	3.6	6.1	6.4	5.7	5.65	5.475
REIC	Brushy Fork, Instream	6.8	7.1	1.6	3.9	5.7	6.9	4.85	4.575	4.525
REIC	Little Marsh Fork, Instream	3.3	2.2	6.1	1.9	3.3	2.6	3.375	3.375	3.475

ALL SELENIUM CONCENTRATIONS IN MICROGRAMS PER LITER

Exhibit B