

Colorado Water Quality Control Division 4300 Cherry Creek Drive South WQCD-B2 Denver, Colorado 80246 Telephone: (303) 782-0390	<p style="text-align: center;"><b>RECEIVED</b></p> <p style="text-align: center;">MAR 09 2015</p> <p style="text-align: center;">BY <i>Willie Delgado</i> CDPHE MAIL ROOM</p>
<p><b>In the Matter of:</b></p> <p>Permits CO-0047767, CO-0047776, and CO-0048003,          Held by Pioneer Natural Resources USA, Inc.,</p> <p><b>Petitioner.</b></p>	
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<p><b>PETITIONER'S NOTICE OF APPEAL, REQUEST FOR ADJUDICATORY HEARING, AND REQUEST FOR STAY</b></p>	

Pioneer Natural Resources USA, Inc. ("Pioneer") brings this Notice of Appeal, Request for Stay, and Request for Adjudicatory Hearing regarding the Water Quality Control Division's (the "Division's") February 6, 2015 denials of three requests for permit modifications and its issuance of Division-crafted permit modifications. Pioneer holds discharge permits CO-047767 (the "47767 Permit"), CO-047776 (the "47776 Permit"), and CO-0048003 (the "48003 Permit"),

which authorize the discharge of produced water from Pioneer's coalbed methane ("CBM") operations to tributaries of the Purgatoire River. *See* Ex. P-01 (47767 Permit, Aug. 27, 2014); Ex. P-15 (47776 Permit, July 31, 2014); Ex. P-36 (48003 Permit, July 31, 2014).

## **I. IDENTIFICATION OF PARTIES AND SUBJECT MATTER OF REQUEST**

For more than 15 years, Pioneer (including its predecessors in interest) has produced CBM from the Raton Basin. CBM lies in deep underground seams where it is interlaced with water molecules – hence, Pioneer's CBM wells bring methane and water to the surface where the methane is separated and the water released. Pioneer's CBM wells are primarily located upgradient in the tributaries to the Purgatoire River. Since Pioneer began CBM production, the Purgatoire River has met water quality standards. The water produced by Pioneer's CBM operations is anything but waste; it is used for crop irrigation, livestock watering, and wildlife habitat. Indeed, there are ranchers whose operations rely on Pioneer's produced water. Notwithstanding the factual evidence of good and usable water in the Purgatoire River, the Division has proposed new, restrictive discharge limits on the CBM produced water. One of the Division's justifications for these more restrictive limits is the maintenance of the "current condition," but years of real-life experience with Pioneer's operations in the Raton Basin show that the current condition of the Purgatoire River is clean and healthy and that Pioneer's continued CBM operations will not adversely impact the River.

The Division's denials of Pioneer's proposed scientifically-based permit modification proposals for electrical conductivity ("EC") and sodium absorption ratio ("SAR"), whole effluent toxicity ("WET") testing, and iron failed to acknowledge that the status quo is protective of water quality and beneficial uses. Further, the Division's new permit modifications for these parameters are arbitrary, capricious and beyond the scope of the agency's authority.

CBM production in the Raton Basin could continue for another 20 to 40 years, providing economic benefits to the local communities in excess of \$85 million per year. Pioneer's CBM wells produce approximately 4,500 acre feet of water per year, some of which is injected, but most of which—up to 2,700 acre feet per year—is contributed to the parched Purgatoire/Arkansas River basin. The State's permit modifications will either stop CBM production altogether or require the produced water to be injected (and thereby wasted) at an estimated cost of \$111 million to Pioneer and XTO Energy, Inc. ("XTO"), the other CBM operator in the Basin.<sup>1</sup> The added water would no longer increase the Purgatoire River flows in this arid region, impacting wildlife and possibly even forcing ranchers to cease production on their land.

Accordingly, Pioneer has no choice but to file this appeal and request an adjudicatory hearing regarding the Division's February 6, 2015 denial of Pioneer's requests for modification of the 47767 Permit, the 47776 Permit, and the 48003 Permit (collectively, the "Permits"). Specifically, on February 6, 2015 the Division denied Pioneer's December 18, 2013<sup>2</sup> requests for modification of the WET testing approaches in the 47776 and 48003 Permits. The Division also denied Pioneer's December 18, 2013 requests for modification of the iron limits in all three of the Permits. Finally, the Division denied Pioneer's August 7, 2014 requests for modified EC/SAR compliance schedules for all three of the Permits. As explained below, the Division's denial of Pioneer's requests for modifications—which were based on sound scientific principles and would have protected the beneficial uses in the receiving waters—was arbitrary, capricious,

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<sup>1</sup> XTO has today filed its own Notice of Appeal, Request for Stay, and Request for Adjudicatory Hearing relating to the Division's denials of its three requests for permit modifications and the Division's issuance of Division-crafted modifications relating to its own permits.

<sup>2</sup> The Modification Forms for the Permits were filed on December 18, 2014, but the Modification Form for the 48003 Permit was amended on January 1, 2014.

in excess of the Division's authority, not based on substantial evidence, and an abuse of discretion in violation of Colo. Rev. Stat. § 24-4-106. Moreover, the Division's unprompted issuance of new permit modifications for WET and EC/SAR on February 6, 2015 was arbitrary, capricious, in excess of the Division's authority, and an abuse of discretion in violation of Colo. Rev. Stat. § 24-4-106.

Pioneer also requests that the Division stay its (1) adoption, implementation, and enforcement of the challenged EC/SAR limitations currently in effect; (2) adoption, implementation, and enforcement of the WET testing approach and iron limitations in the current permit, which become effective July 1, 2015; and (3) adoption, implementation, and enforcement of the provisions of pending draft Permits related to WET, iron, and EC/SAR, should those provisions become final during the pendency of this appeal.

## **II. STATUTORY AND REGULATORY AUTHORITY**

### **A. Notice of Appeal and Request for Adjudicatory Hearing**

Pioneer brings this request for an adjudicatory hearing under the State Administrative Procedure Act (the "APA"), codified at sections 24-4-101 through 108 of the Colorado Revised Statutes, the Colorado Water Quality Control Act (the "WQCA"), codified at sections 25-8-101 through 803 of the Colorado Revised Statutes, and the regulations of the Water Quality Control Commission (the "Commission"), 5 C.C.R. § 1002.

Section 25-8-403 of the WQCA provides that any party directly affected by a final order or determination of the Division may apply for a hearing with respect to such order or determination. Regulations implementing the WQCA provide that "[p]ermit modification . . .

actions shall be subject to the requirements of [5 C.C.R. § 1002-]61.7.” 5 C.C.R. § 1002-61.8(8)(e). Regulation 61.7 in turn provides that the “application [*sic*] . . . affected or aggrieved by the Division’s final determination may demand an adjudicatory hearing within thirty (30) days of the issuance of the final permit determination.” 5 C.C.R. § 1002-61.7(a). Pioneer is a party directly affected by the Division’s denials of Pioneer’s EC/SAR, WET, and iron modification requests. These denials are final permit determinations subject to an adjudicatory hearing.<sup>3</sup> The Division’s decisions to issue new permit modifications for WET and EC/SAR are final permit determinations subject to an adjudicatory hearing.

The hearing may address all the issues of fact and law raised in Pioneer’s modification requests and meetings and correspondence with the Division regarding the same. *See* 5 C.C.R. § 1002-61.7(c). The hearing shall be subject to the requirements of sections 24-4-105 and 25-8-401 through 406 of the Colorado Revised Statutes, as well as 5 C.C.R. § 1002-21.7.

This request for an adjudicatory hearing is timely under Colo. Rev. Stat. § 24-4-105(14)(a)(II) and 5 C.C.R. § 1002-61.7(a).<sup>4</sup> The Division is the proper forum for this hearing. *See* 5 C.C.R. § 1002-21.4(A)(3).

**B. On Appeal, the Division Has the Burden of Proof**

The Division will bear the burden of proof at the adjudicatory hearing. The Commission’s regulations provide that “the Division shall have the burden of proof . . . [w]here

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<sup>3</sup> Although the Division considered these modification requests along with Pioneer’s permit renewal applications, these modification requests are not subject to the draft permit process, as the “denial of a request for modification . . . is not a draft permit.” *See* 5 C.C.R. § 1002-61.2 (24).

<sup>4</sup> Here, because the thirtieth day after February 6, 2015 fell on Sunday, March 8, 2015, Pioneer has until today, March 9, 2015, to file its appeal. *Industrial Comm’n v. Vigil*, 373 P.2d 308, 310 (Colo. 1962) (“[w]here the time for performance of an act is set by statute and that date falls on Sunday, the date is by operation of law continued until the following Monday.”)

the Division initiated the permit revocation or modification.” 5 C.C.R. § 1002-61.7(d)(ii). In this case, while Pioneer requested modifications to the Permits, the only modifications to the Permits actually implemented were not requested by Pioneer, but were instead initiated by the Division. The Division should bear the burden of proof as to both its denial of the requested modifications and its imposition of the new modifications.

C. Request for Stay

Pioneer brings its request for a stay under section 25-8-406 of the Colorado Revised Statutes, which provides that the Division may stay any contested terms and conditions of a permit for good cause shown. *See also* 5 C.C.R. § 1002-61.7(c). The Division’s decisions on the permit modifications must be stayed to preclude undue harm to Pioneer from these agency decisions. If not stayed, Pioneer would be required to comply with the underlying permit terms and could face enforcement actions for failure to comply, even though the Division’s permit modifications may be overturned on appeal (and thereby rendered void *ab initio*). The basis for a finding of good cause for a stay is discussed in Section III(E) of this petition.

**III. BASIS FOR APPEAL**

A. Factual Background

**1. Procedural History and Summary of the Issues**

Pioneer’s CBM operations in the Raton Basin comprise 50 outfalls. The produced water discharged from these outfalls is authorized by the Permits, which were originally authorized under General Permits, then individual permits issued on December 30, 2009, effective February 1, 2010. Those permits were set to expire on January 31, 2015. Although the normal course of

business would be to submit permit renewal applications six months prior to expiration in accordance with 5 C.C.R. § 1002-61.4(1)(D), the Division requested that Pioneer submit early renewal applications for its permits. *See Ex. . P-66* (Letter from CDPHE re Renewal Notification for CO0047767 (June 27, 2013)); *Ex. P-67* (Letter from CDPHE re Renewal Notification for CO0047776 (June 27, 2013)); *Ex. P-68* (Letter from CDPHE re Renewal Notification for CO0047776 (June 27, 2013)). In accordance with the Division's request that it submit renewal applications earlier than required, Pioneer filed Permit Renewal Applications on December 23, 2013.

Additionally, Pioneer filed Permit Modification Forms on December 18, 2013 requesting modification to the 47776 and 48003 Permits to implement "alternative approaches for determining compliance with [WET] chronic testing for outfalls in the Raton Basin." *See Ex. P-21 at 2* (47776 Permit Modification Form, filed Dec. 18, 2013); *Ex. P-43 at 2* (48003 Permit Modification Form, as filed on Dec. 18, 2013); *Ex. P-42 at 2* (48003 Permit Modification Form, as amended on Jan. 14, 2014). This modification request for WET was encouraged by and developed in cooperation with the U.S. Environmental Protection Agency ("EPA"). Along with, and in support of, the Modification Forms, Pioneer submitted a cover letter from Ronda Sandquist, Esq. explaining the rationale for the request, *see Exs. P-22 & P-44*, proposed WET testing permit limits, *see Exs. P-24 & P-46*, a February 2013 study by Dr. Rami Naddy, PhD, titled *Ecological Evaluation of the Effects from Pioneer and Pioneer NPDES Discharges to Aquatic Life in Lorencito and South Fork Purgatoire River*, *see Exs. P-25 & P-47* (the "Naddy WET Report"), and an Executive Summary of the Naddy WET Report, *see Exs. P-23 & P-45* (the "WET Executive Summary"). *See also Exs. P-26 & P-41* (Division-stamped confirmations of receipt of request (Dec. 20, 2013)). The request noted that "[b]iological monitoring has found

that aquatic life communities are only sustained in the Purgatoire River, not the upgradient tributaries,” and therefore proposed that “acute WET testing at discharge outfalls in the tributaries will be protective.” Ex. P-22 & P-44 at 1 (Dec. 16, 2013 Sandquist Letter).

Additionally, although “[t]esting at the tributary outfalls and confluences of the Purgatoire River indicates that compliance with acute levels at the outfalls will result in meeting WET chronic objectives for the Purgatoire River,” the request proposed that, “[t]o assure that toxicity in the Purgatoire River does not increase, chronic WET tests will be conducted at the confluences of tributaries and the River.” *Id.* Pioneer met with the Division on at least February 25, 2014 to discuss its WET testing proposal. *See* Ex. P-74 (E-mail from R. Sandquist, Counsel for Pioneer, to P. Pfaltzgraff, WQCD, re: RE: XTO Energy & Pioneer Natural Resources Meeting with WQCD Permits Section (Feb. 11, 2014)) (providing agenda for February 25, 2014 meeting).<sup>5</sup> In Fact Sheets dated July 30, 2014, the Division informed Pioneer that it would address this request when it issued draft renewal permits, which it expected to occur by August 2014. *See* Ex. P-19 at 2 (July 30, 2014 Fact Sheet to Modification #4, 47776 Permit); Ex. P-40 at 2 (July 30, 2014 Fact Sheet to Modification #3, 48003 Permit).

Also on December 18, 2013, Pioneer requested modifications to the 47767, 47776, and 48003 Permits to implement “an iron trading program to reduce the background sources of iron in the Purgatoire River watershed and provide credits to Pioneer to offset their iron discharges.” *See* Ex. P-07 at 2 (47767 Permit Modification Form, filed Dec. 18, 2013); Ex. P-21 at 2 (47776 Permit Modification Form, filed Dec. 18, 2013); Ex. P-43 at 2 (48003 Permit Modification Form,

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<sup>5</sup> Pioneer had also engaged with the Division regarding WET issues prior to filing the modification request, including on September 4, 2012. *See, e.g.*, Ex. P-70 at 3 (Letter from R. Sandquist, counsel for Pioneer, to Water Quality Control Commission, re: Comments on the Classifications and Numeric Standards for Arkansas River Basin, Regulation #32 (5 CCR 1002-32) and Rio Grande River Basin Regulation #36 (5 CCR 1002-36) Issues Formulation Hearing, at 4 (Oct. 24, 2012)) (referencing September 4, 2012 meeting).

filed Dec. 18, 2013). This iron trading program was inspired by, and intended to meet the objectives of, the Colorado Pollutant Trading Policy. Along with, and in support of, the Modification Forms, Pioneer submitted a cover letter from Ronda Sandquist, Esq. explaining the rationale for the request, *see* Exs. P-08, P-28 & P-50, proposed iron permit limits, *see* Exs. P-09, P-29 & P-51, iron trading compliance schedules, *see* Exs. P-10, P-30 & P-52, and a formal proposal and study titled *Iron Trading Program in the Purgatoire Watershed*, *see* Exs. P-11, P-31 & P-53 (the “Iron Trading Study”). *See also* Exs. P-06, P-26 & P-48 (Division-stamped confirmations of receipt of request (Dec. 20, 2013)). Pioneer proposed that “iron trades be authorized in its Permits as means to comply with the iron effluent limits.” Ex. P-08, P-28 & P-50 at 1 (Dec. 18, 2013 Sandquist Letter). Such a trading program “would reduce the background sources of iron in the Purgatoire River watershed and provide credits to Pioneer to offset their iron discharges.” *Id.* Pioneer met with the Division on February 25, 2014 and May 27, 2014 to discuss Pioneer’s iron trading proposal. *See* Ex. P-74 at 3 (E-mail from R. Sandquist to P. Pfaltzgraff, WQCD, re: RE: XTO Energy & Pioneer Natural Resources Meeting with WQCD Permits Section (Feb. 11, 2014)); Ex. P-75 (E-mail from J. Vlier, Tetra Tech, to L. Mulsoff, WQCD, re: Itinerary for Purgatoire Site Visit – May 27, 2014, noon – 4pm (May 21, 2014)) (documenting that members of CDPHE (including Lori Mulsoff, at a minimum) visited the Purgatoire site on May 27, 2014 and discussed the proposed Iron Trading Stream Restoration Project). In Fact Sheets dated July 30, 2014, the Division informed Pioneer that it would address this request when it issued draft renewal permits, which it expected to occur by August 2014. *See* Ex. P-05 at 5 (July 30, 2014 Fact Sheet to Modification #3, 47767 Permit); Ex. P-19 at 2 (July 30, 2014 Fact Sheet to Modification #4, 47776 Permit); Ex. P-40 at 2 (July 30, 2014 Fact Sheet to Modification #3, 48003 Permit).

On August 7, 2014, Pioneer requested EC/SAR compliance schedules for the 47767, 47776, and 48003 Permits. *See* Ex. P-12 (47767 Permit Modification Form, filed Aug. 7, 2014); Ex. P-33 (47776 Permit Modification Form, filed Aug. 7, 2014); Ex. P-54 (48003 Permit Modification Form, filed Aug. 7, 2014). Revised EC/SAR limits became effective on April 1, 2014 as the result of a February 28, 2014 modification to the Permits. *See* Ex. P-04 (Feb. 28, 2014 Fact Sheet to Modification 2, 47767 Permit); Ex. P-18 (Feb. 28, 2014 Fact Sheet to Modification No. 3, 47776 Permit); Ex. P-39 (Feb. 28, 2014 Fact Sheet to Modification 2, 48003 Permit). Along with the Modification Forms, Pioneer submitted a cover letter from Ronda Sandquist, Esq. explaining the rationale for the request, *see* Exs. P-13, P-34, & P-50, and a proposed compliance schedule, *see* Ex. P-14, P-35 & P-56. Pioneer noted that, since new EC/SAR limitations became effective in April 2014, Pioneer had “experienced compliance issues meeting the EC/SAR values contained in the Permits.” *See* Ex. P-13 at 1 (Aug. 6, 2014 Sandquist Letter). Pioneer accordingly sought “to modify the Permits to include a compliance schedule for EC/SAR with ‘report only’ requirements that will provide Pioneer with adequate time to assess how to comply with EC/SAR limits and to gather additional data to support revised EC/SAR limits.” *Id.* Pioneer met with the Division on at least February 25, 2014 to discuss Pioneer’s EC/SAR testing proposal. *See* Ex. P-74 (E-mail from R. Sandquist to P. Pfaltzgraff, WQCD, re: RE: XTO Energy & Pioneer Natural Resources Meeting with WQCD Permits Section (Feb. 11, 2014)).<sup>6</sup>

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<sup>6</sup> Pioneer had also engaged with the Division regarding EC/SAR issues prior to filing the modification request, including on July 31, 2015. *See, e.g.*, Ex. P-72 (E-mail from R. Sandquist, counsel for Pioneer, to K. Morgan and C. Pickens, WQCD, re: Pioneer Progress Report // SAR Treatment Options (Oct. 30, 2014)) (referencing July 31, 2014 meeting between Pioneer and WQCD).

On February 6, 2015, in conjunction with the issuance of draft renewal Permits, the Division issued Fact Sheets which contained the final decisions<sup>7</sup> of the Division denying Pioneer's WET, Iron, and EC/SAR modification requests for each of the Permits. *See* Ex. P-02 (47767 Renewal Permit Draft); Ex. P-16 (47776 Renewal Permit Draft); Ex. P-37 (48003 Renewal Permit Draft); Ex. P-03 (47767 Permit Feb. 6, 2015 Fact Sheet) ("47767 Fact Sheet"); Ex. P-17 (47776 Permit Feb. 6, 2015 Fact Sheet) ("47776 Fact Sheet"); Ex. P-38 (48003 Permit Feb. 6, 2015 Fact Sheet) ("47776 Fact Sheet"). The Fact Sheets also contained final Division decisions to impose new, unrequested modifications to the approach for measuring SAR and to the WET testing methodology. This Petition for an Adjudicatory Hearing followed.

## 2. Status of the Permits.

The Permits, issued on December 30, 2009, were set to expire on January 31, 2015. *See* Ex. P-01 (47767 Permit); Ex. P-15 (47776 Permit); Ex. P-36 (48003 Permit). Although the Division issued initial draft renewal permits on February 6, 2015, the terms of the draft renewal permits do not take effect until Final Permits are issued following a public comment period. *See* 5 C.C.R. § 1002-61.6. In these cases, the requirements of the otherwise expired permits continue until the renewal permits are finalized. *See* 5 C.C.R. § 1002-61.8(3)(o) (2015). As a result,

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<sup>7</sup> The finality of the Division's decisions is evident from numerous examples of conclusive language that leaves no room for reconsideration or negotiation. *See, e.g.*, Ex. P-03 at 6 (47767 Fact Sheet) ("The Division has evaluated the modification request described above and disagrees with the approach for the following reasons:"); Ex. P-17 at 4 (47776 Fact Sheet) (same); Ex. P-38 at 4 (48003 Fact Sheet) (same); Ex. P-17 at 7 (47767 Fact Sheet) ("Thus, the record does not show that the discharger could not comply with the limitations as of April 2014 in some of the outfalls (all but one for EC). Subsequently, compliance schedules would not be appropriate for those outfalls."); Ex. P-17 at 5-6 (47776 Fact Sheet) (same); Ex. P-38 at 5 (48003 Fact Sheet) (same); Ex. P-03 at 9 (47767 Fact Sheet) ("The Division determined that in this case, it is appropriate to establish effluent limits for SAR using standard methodology used to derive ambient based standards, an 85th percentile value, which is the standard statistical method used to characterize 'existing quality' [*see* Regulation 31.5(20)]."); Ex. P-17 at 7 (47776 Fact Sheet) (same); Ex. P-38 at 7 (48003 Fact Sheet) (same); Ex. P-17 at 12 (47767 Fact Sheet) ("The Division disagrees with the applicability of the iron trading proposal for this permit . . . for the following reasons"); Ex. P-17 at 12 (47776 Fact Sheet) (same); Ex. P-38 at 10 (48003 Fact Sheet) (same); Ex. P-03 at 16 (47767 Fact Sheet) ("No changes to the permit are warranted as a result of this modification request."); Ex. P-17 at 13 (47776 Fact Sheet) (same); Ex. P-38 at 13 (48003 Fact Sheet) (same).

compliance deadlines issued under the Permits remain in effect, subject to the expiration date set forth for each Compliance Schedule. Relevant to the current appeal and stay request, those permits contain July 1, 2015 compliance deadlines for iron and WET. *See* Ex. P-01 at 9-11 (47767 Permit); Ex. P-15 at 5-7 (47776 Permit); Ex. P-36 at 5 (48003 Permit). The implications of these deadlines are discussed below in Section III(E), regarding Pioneer's request for stay.

B. The Division Erroneously Denied Pioneer's WET Modification Request.

1. **Pioneer's Proposal.**

On December 18, 2013, Pioneer requested a modified WET testing approach for two of its permits – 47776 and 48003. *See* Ex. P-21 at 2 (47776 Permit Modification Form, filed Dec. 18, 2013); Ex. P-43 at 2 (48003 Permit Modification Form, as filed on Dec. 18, 2013); Ex. P-42 (48003 Permit Modification Form, as amended on Jan. 14, 2014). The purpose of WET testing is to measure “the aggregate toxic effect on an effluent measured directly by an aquatic toxicity test.” 54 Fed. Reg. 23,868, 23,895 (June 2, 1989). “Aquatic toxicity tests are laboratory experiments that measure the biological effect (e.g., survival, growth, and reproduction) of effluents or receiving waters on aquatic organisms.” *See* Ex. P-57 at 18 (EPA Regions 8, 9, and 10 Toxicity Training Tool (Jan. 2010)).

The genesis of Pioneer's proposal was the EPA, which first recommended the requested WET approach at a 2012 meeting with representatives from EPA headquarters, EPA research lab, EPA Region 8 and the Division. *See* Ex. P-69 (Joint Letter from Pioneer and XTO to EPA, the Division, and U.S. Geological Survey (“USGS”), Feb. 22, 2012). Prior to this meeting, Pioneer had recommended using an alternative test species for WET testing. However, EPA determined that the appropriate strategy would be to conduct WET testing at the confluences of

the tributaries and Purgatoire River, where the aquatic life warranting protection were present. The EPA indicated that Colorado Department of Public Health and the Environment (“CDPHE”) has the discretion to set the point of compliance for its aquatic life and toxicity testing policy. A letter from Pioneer and XTO regarding these discussions documents EPA’s seminal role in Pioneer’s modification request. *Id.*

Following the February 2012 meeting, Pioneer authorized toxicologists to expand the scope of their studies and conduct WET tests of water at the confluences. The results of these tests are contained in a comprehensive study by Dr. Rami Naddy. *See generally* Ex. P-25 (Naddy WET Report). Using the approach advocated by Pioneer and EPA, the tests resulted in findings of no toxicity at different locations in the Lorencito Canyon and South Fork Purgatoire River tributaries to the Purgatoire River. *See id.* at 11-12 (Naddy WET Report).

The executive summary of the Naddy WET Report lays out the framework for the requested approach. *See generally* Ex. P-23 (WET Executive Summary). The summary notes that, in many locations, no flow or aquatic life would exist *but for* the outfall’s discharge. *See Id.* at 2 (WET Executive Summary). When measured at the outfall, some of the outfalls could not comply with the required chronic WET testing, which used the species *Ceriodaphnia dubia* (“*C. dubia*”). *Id.* at 1. This nonattainment arose, in part, because of *C. dubia*’s sensitivity to total dissolved solids (“TDS”). *Id.* at 2-3; *see also* Ex P-25 at 22 (Naddy WET Report).

Pioneer therefore proposed a revised, two-part WET testing approach. First, Pioneer proposed acute WET testing at the outfalls using *Daphnia magna*, a species less susceptible to TDS toxicity and more representative of the aquatic species in the areas. *See* Ex. P-44 at 1 (Dec. 16, 2013 Sandquist Letter); Ex. P-23 at 4 (WET Executive Summary). Second, to assure that no

toxicities other than TDS were affecting aquatic species, there would be chronic WET testing using *C. dubia* at the confluences with the Purgatoire River. *See* Ex. P-44 at 1 (Dec. 16, 2013 Sandquist Letter); Ex. P-23 at 4 (WET Executive Summary).

## 2. The Division's Denial.

Nevertheless, the Division rejected Pioneer's WET testing proposal in Fact Sheets dated February 6, 2015. *See* Ex. P-17 at 12 (47776 Fact Sheet); Ex. P-38 at 12 (48003 Fact Sheet). As an initial matter, the Division found that, regardless of whether aquatic life actually exist in the relevant watersheds, the Water Quality Control Commission's aquatic life standards for the segmentation applied. Ex. P-17 at 12-13 (47776 Fact Sheet); Ex. P-38 at 12 (48003 Fact Sheet). Under the "Implementation of the Narrative Standard for Toxicity in Discharge Permits Using Whole Effluent Toxicity (WET) Testing" (the "WET Policy"), acute WET testing is only permissible where an instream wastewater concentration ("IWC") is 9.1% or less. Ex. P-17 at 12 (47776 Fact Sheet); Ex. P-38 at 12 (48003 Fact Sheet); *see also* Ex P-58 at 3-4 (WET Policy). The Division found that, for the 47776 and 48003 Permits, the IWC significantly exceeds 9.1% due to the ephemeral nature of the respective watershed, making acute testing inappropriate.<sup>8</sup> Ex. P-17 at 12 (47776 Fact Sheet); Ex. P-38 at 12 (48003 Fact Sheet).

The Division found that none of the three exemptions from the chronic WET testing requirement is applicable at this time. Ex. P-17 at 12-13 (47776 Fact Sheet); Ex. P-38 at 12 (48003 Fact Sheet). The first exemption applies "[w]here there is not an aquatic life designated use on the stream segment." *See* Ex. P-58 at 4 (WET Policy). The Division found this

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<sup>8</sup> The logical consequence of the Division's finding in this regard is that any outfall that discharges to an essentially non-existent stream (and thus home to no aquatic life) will necessarily be subject to more stringent WET testing requirements than an outfall that discharges to a consistently flowing body of water.

exemption was not applicable because “[a]quatic life uses are designated on all receiving waters.” Ex. P-17 at 13 (47776 Fact Sheet); Ex. P-38 at 12 (48003 Fact Sheet). The second exemption may apply “[w]here there is an aquatic life designated use, but most of the aquatic life standards (e.g., chlorine, and the TVS equations such as ammonia and metals) are not in the site-specific segment standards.” See Ex. P-58 at 4 (WET Policy). Again, the Division found this exemption inapplicable because all of the aquatic life standards are assigned to the Permits’ respective segment. Ex. P-17 at 13 (47776 Fact Sheet) (“the Lorencito (4b) is assigned all of the aquatic life standards”); Ex. P-38 at 12 (48003 Fact Sheet) (“segment 5b is assigned all of the aquatic life standards”).<sup>9</sup> The third exemption applies “[w]here the discharge is intermittent,” as defined in the WET Policy. Ex. P-58 at 4 (WET Policy). The Division also denied the applicability of this exemption, finding that “the discharges from the outfalls do not currently meet the definition of ‘intermittent’ as described in the policy.” Ex. P-17 at 13 (47776 Fact Sheet); Ex. P-38 at 12 (48003 Fact Sheet).

The Division separately rejected the proposal to perform chronic WET testing at the confluences due to its interpretation of section 25-8-501, C.R.S., and 5 C.C.R. § 1002-61.8(2)(e), which it found to require permit limitations “at outfall locations, *prior to entering a state water*” (emphasis in original). See Ex. P-17 at 13 (47776 Fact Sheet); Ex. P-38 at 13 (48003 Fact Sheet).

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<sup>9</sup> It is important to note that the Division has erred in listing Pioneer outfalls 005A, 010A, 027A, 059A, 075A, and 076A to Lorencito Canyon, Segment 4b, and the contributing flows from these outfalls; these outfalls actually discharge to Segment 6a, which has considerably less sensitive aquatic life uses. Ex. P-62 at Table A-2b (Water Quality Assessment). Mistakes like these result in more stringent permit limits for WET and iron limits in Pioneer’s permits and in more monitoring and restrictive conditions with no environmental benefit. The contributing flow errors in the permitting documentation (i.e., Segment 5a discharge from Outfall 241 erroneously listed by the Division as discharging 0.28 cfs, when the correct maximum discharge provided by Pioneer was 0.04 cfs also creates compounding errors that make overarching differences in permit limits, to the detriment of Pioneer.

### 3. The Division's Modification.

For the 47767 and 47776 Permits, the Division determined that the chronic WET testing requirements should be included for permitted outfalls and provided an 18-month compliance schedule. Ex. P-03 at 41 (47767 Fact Sheet); Ex. P-17 at 41 (47776 Fact Sheet). Further, the Division commented that Pioneer could elect to “formally request an alternative testing procedure (an alternative species) for chronic WET testing, to the EPA”. Ex. P-03 at 41 (47767 Fact Sheet); Ex. P-17 at 41 (47776 Fact Sheet).

### 4. Errors in the Division's Response.

The Division concluded that “No changes to the permit are warranted as a result of this modification request.” Ex. P-17 at 13 (47776 Fact Sheet); Ex. P-38 at 13 (48003 Fact Sheet). The Division's rejection of Pioneer's December 18, 2013 WET testing proposal and imposition of its own modification was not only erroneous, but arbitrary, capricious, in excess of the Division's authority, and an abuse of discretion for several reasons:

#### a) The Law Permits Downstream WET Testing.

The Division's rationale for rejecting the proposal is not supported by the law or regulation referenced by the Division. Neither Colo. Rev. Stat. 25-8-501 nor 5 C.C.R. § 1002-61.8(2)(e) requires permit limitations “prior to entering state water.” Regulation 61.8(2)(e) only requires limitations, standards and prohibitions to be established for each outfall. It does not dictate that compliance and testing cannot occur downstream. The Division's interpretation to the contrary is arbitrary and capricious.

b) The Division Failed to Consider the Sensitivity of the Test Species.

The Division failed to consider and apply Regulation 61.8(2)(b)(1)(B) requiring the Division to employ “procedures, including appropriate water quality modeling, which account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity), and where appropriate, the dilution of the effluent in the receiving water.” Specifically, the Division’s decision fails to consider “sensitivity of the species to toxicity testing,” as required by Regulation 61.8(2)(b)(i)(B). The Division’s decision is also inconsistent with EPA regional policy, which states that the permitting authority “should select the appropriate species to be tested based on taxonomic diversity, type of facility, types of potential toxicants, and effluent seasonal and temporal effects.” Ex. P-57 at 42 (EPA Regions 8, 9, and 10 Toxicity Training Tool (Jan. 2010)). EPA is clear that “[t]his recommendation is based upon the fact that there are species sensitivity differences among different groups of organisms to different toxicants.” *Id.* at 43. For this reason, EPA states that “the Permitting Authority should evaluate any existing toxicity data provided by the permittee.” *Id.* at 42. The Division has ignored the toxicity data provided as part of Pioneer’s renewal application and has failed to consider alternative test species, in direct contradiction of the applicable regulations and EPA guidance.

c) Testing Need Not Occur at the Outfall.

Although discharge permits must include effluent limitations for each permitted outfall or discharge point (see 5 C.C.R. § 1002-61.8(2)(e)), neither the WQCA nor the Division’s regulations specify that the concentration of a pollutant at the outfall must satisfy the receiving

stream's water quality standards where, like here, the discharge is effectively treated further (by dint of its attempted journey across otherwise dry stream beds) before reaching waters where the protected use actually exists. Regulation 61.8(4)(c) provides that "[t]o assure compliance with permit limitations," the permittee shall monitor "(i) the concentration (or other measurement specified in the permit) for each pollutant limited in the permit; and (ii) the volume of effluent discharged from each outfall," as well as "(iii) [o]ther measurements as appropriate." 5 C.C.R. § 1002-61.8(4)(c). Although this provision requires monitoring of the "volume of effluent discharged from each outfall," the provision does not specify where the permittee must measure the concentration of a pollutant to determine compliance with water quality standards (i.e., at "each outfall" or somewhere else). *See id.* By further allowing for "other measurements as appropriate," the regulation indicates that permittees have the ability to monitor pollutant concentrations at a location other than, or at least in addition to, the outfall. *See id.* Accordingly, the CDPHE has the discretion to set the point of compliance for its aquatic life and toxicity testing policy. This is also the interpretation of the EPA, which recommended that Pioneer request a modified approach to testing WET. *See* Ex. P-69 (Joint letter from Pioneer and XTO to EPA, the Division, and USGS, Feb. 22, 2012). The Division's conclusion that it may not allow for WET testing at the confluences is not based in law or fact and is therefore arbitrary and capricious.

d) The Division Exceeded Its Regulatory Authority by Initiating a Modification.

The Division's issuance of new permit modifications exceeds the authority delegated to the Division regarding permit modifications. Specifically, the Division is authorized to undertake permit modifications "at the request of a permittee or any other interested person." 5

C.C.R. § 1002-61.8(8)(c). In this case, Pioneer requested specific permit modification requests. The Division has denied those. The denials should have concluded any Division actions. However, instead of standing on that denial, the Division proceeded to issue its own permit modifications.

There were no requests for the permit modifications issued by the Division for WET testing. The Division can only make a modification when it finds “the permittee or interested person has shown reasonable grounds consistent with federal and state statutes and regulations for such modifications. . .” 5 C.C.R. § 1002-61.8(8)(c)(ii). This leaves the Division without any option other than modification, termination and revocation. The Division had the option of requesting additional information from the permittee. 5 C.C.R. § 1002-61.8(8)(d). Such information could have supported a revised permit modification. However, no such formal request was issued. The Division’s role in the permit modification process is—by design—to evaluate and decide permittee-requested modifications, not to develop permit modifications itself. Even, minor permit modifications cannot be made by the Division alone. Such permit modifications are required to be “upon consent by the permittee.” 5 C.C.R. § 1002-61.8(8)(f).

e) The Division’s Suggestion Contradicts EPA’s Guidance.

The Division’s “offer” for Pioneer to proceed with an alternate species is not in accordance with the facts underlying WET testing in the Raton Basin. The Division’s decision completely ignores the comments of EPA in 2012 at a meeting that the Division attended. *See* Ex. P-69 (Joint letter from Pioneer and XTO to EPA, the Division, and USGS, Feb. 22, 2012). At that meeting, EPA stated that an alternate species request would not be well-received by the agency and encouraged Pioneer to proceed with the proposal as outlined in Pioneer’s permit

modification. *Id.* This Division-initiated modification is therefore arbitrary, capricious, and an abuse of discretion in that it contradicts explicit guidance from EPA.

Additionally, the Division's multiple changes to the WET testing approach, *see, e.g.*, Ex. P-03 at 38 (47767 Fact Sheet), arbitrarily and capriciously contradict its earlier conclusion that no modifications to the WET testing protocol are warranted, *see id.* at 13.

C. The Division Erroneously Denied Pioneer's Iron Modification Request.

1. **Pioneer's Proposal.**

On December 18, 2013, Pioneer submitted a request for a modification of iron limits in all three of the Permits. *See* Ex. P-07 (47767 Permit Modification Form, filed Dec. 18, 2013); Ex. P-27 (47776 Permit Modification Form, filed Dec. 18, 2013); Ex. P-18 at 2 (48003 Permit Modification Form, filed Dec. 18, 2013). Pioneer proposed that the Division authorize an iron trading program that would reduce the background sources of iron in the Purgatoire River and provide credits to offset Pioneer's discharges in an amount equal to half the reduction. *See* Ex. P-08 at 1 (Dec. 18, 2013 Sandquist Letter); Ex. P-07 at 2 (47767 Permit Modification Form, filed Dec. 18, 2013); Ex. P-21 at 2 (47776 Permit Modification Form, filed Dec. 18, 2013); Ex. P-43 at 2 (48003 Permit Modification Form, filed Dec. 18, 2013). As detailed in a comprehensive report by Tetra Tech submitted in support of the proposal, Pioneer noted that because streambank erosion is a substantial source of iron in the Purgatoire, implementing streambank stabilization projects "along the Purgatoire River" would reduce iron loading. *See* Ex. P-11 at 7 (Iron Trading Study); *see also* Ex. P-08 at 1 (Dec. 18, 2013 Sandquist Letter). Using the South Fork of the Purgatoire River as a case study, the report addressed iron loading and the benefits of streambank stabilization in the Purgatoire Watershed as a whole. *See generally* Ex. P-11 (Iron

Trading Study). The modification request cited additional benefits of the proposed iron trading program, including reducing total suspended sediment and improving the aquatic habitat of the Purgatoire. *See* Ex. P-08 at 1 (Dec. 18, 2013 Sandquist Cover Letter); *see also* Ex. P-11 (Iron Trading Study) at Appendix C (outlining all secondary benefits). Pioneer explained that attempts to reduce iron from the CBM discharge had proved infeasible, and moreover would not provide these added benefits. *See* Ex. P-08 at 1 (Dec. 18, 2013 Sandquist Letter). For reasons including these, Colorado Parks and Wildlife expressed initial interest in Pioneer's iron trading proposal. *See* Ex. P-71 (E-mail from D. Prenzlou to S. Montoya and M. Trujillo Re: Stream Restoration Project (South Fork Purgatoire), Mar. 27, 2013).

The trading program proposal addresses the basic elements of state and federal trading program directives. *See* Ex. P-08 at 1 (Dec. 18, 2013 Sandquist Letter). As one element of the plan, Pioneer proposed to construct the projects "in phases to match the discharge flows from the outfalls." *Id.* Noting that September is the best month for constructing streambank stabilization projects, Pioneer requested the Division's timely review to enable Pioneer to begin the projects in September 2014, rather than September 2015. *Id.*

## **2. The Division's Denial.**

The Division rejected Pioneer's iron trading proposal in Fact Sheets dated February 6, 2015. *See* Ex. P-03 at 12 (47767 Fact Sheet); Ex. P-17 at 10 (47776 Fact Sheet); Ex. P-38 at 10 (48003 Fact Sheet). Critically, for all three Permits, the Division interpreted the modification request as proposing restoration along the South Fork only. Ex. P-03 at 12-13 (47767 Fact Sheet); Ex. P-17 at 10-11 (47776 Fact Sheet); Ex. P-38 at 10-11 (48003 Fact Sheet). As a result of this misinterpretation, the Division generally found that improvements to the South Fork alone

would not necessarily improve the Purgatoire Watershed as a whole, or would not improve the watershed at issue in a particular Permit. Ex. P-03 at 12-13 (47767 Fact Sheet); Ex. P-17 at 10-11 (47776 Fact Sheet); Ex. P-38 at 10-11 (48003 Fact Sheet). Additionally, for all but the 47767 Permit, the Division rejected the proposal on the basis that trading cannot nullify or allow exceedances of the water quality standards. Ex. P-03 at 12-13 (47767 Fact Sheet); Ex. P-17 at 10 (47776 Fact Sheet); Ex. P-38 at 10 (48003 Fact Sheet). The Division also found that the request did not propose a date by which the stabilizations would generate credits, and did not define a process for measuring credits. Ex. P-03 at 13 (47767 Fact Sheet); Ex. P-17 at 11 (47776 Fact Sheet); Ex. P-38 at 11 (48003 Fact Sheet). Finally, the Division found that additional investigation of other options for meeting antidegradation-based limitations or water quality based effluent limitations was needed. *See* Ex. P-03 at 13 (47767 Fact Sheet); Ex. P-17 at 11 (47776 Fact Sheet); Ex. P-38 at 11 (48003 Fact Sheet).

### **3. Errors in the Division's Response.**

The Division's rejection of Pioneer's December 18, 2013 iron trading proposal was arbitrary, capricious and an abuse of discretion for several reasons:

- a) The Division Misinterpreted the Proposal As Applying Only to the South Fork.

Pioneer's trading program was proposed for the entire Purgatoire River; it did not propose stabilization projects along the South Fork only. The proposal concerned stabilization projects "along the Purgatoire River" as a whole, and referenced construction phases corresponding to each outfall. *See* Ex. P-08 at 1 (Dec. 18, 2013 Sandquist Letter). The Division, however, rejected the proposal on the premise that it focused only on the South Fork. *See* Ex.

P-03 at 12 (47767 Fact Sheet); Ex. P-17 at 10 (47776 Fact Sheet); Ex. P-38 at 10 (48003 Fact Sheet). The Division's misinterpretation of Pioneer's proposal invalidates the findings flowing from that misinterpretation which undergird the Division's denial.

b) The Proposal Reduces Iron Loading; It Does Not Allow Exceedances.

Pioneer did not propose using the trading program to nullify or allow exceedances of its existing permit limits for iron; the opposite is true: Pioneer designed the trading proposal to reduce the overall level of iron in the Purgatoire. The trading program as proposed would accomplish this by reducing background iron in the watershed, which was at high levels even prior to Pioneer's CBM operations.<sup>10</sup> This reduction was possible because the proposed trade ratio was 2:1: Pioneer would remove two pounds of iron from the river, and only receive credits for one pound of iron on its discharge. *See* Ex. P-08 at 1 (Dec. 18, 2013 Sandquist Letter). The Division's findings that disregard this fact are therefore arbitrary, capricious, and not based on substantial evidence.

c) The Division Ignored Pioneer's Timeline.

Pioneer provided a timeline for the generation of credits as a result of the proposed streambank stabilization projects. Pioneer specifically requested the Division's prompt response, which would allow it to complete the final design by March 2014 and begin construction in September 2014. *See* Ex. P-08 at 2 (Dec. 18, 2013 Sandquist Letter). This September 2014 goal was also incorporated into a phased compliance schedule attached to the December 18, 2013

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<sup>10</sup> Historic USGS data from the Purgatoire River at Madrid, CO (USGS, 1978) demonstrate the Purgatoire River did not meet total recoverable iron standards pre-CBM development. This phenomenon was particularly noted after storm events in the watershed when iron in sediment laden-runoff increased. Iron exceedances in the Purgatoire watershed, post-CBM development, continue after snowmelt runoff and storm events.

Sandquist cover letter as Attachment 2. *See* Ex. P-10 (Iron Trading Compliance Schedule). The Division's choice to ignore this timeline is therefore arbitrary, capricious, and an abuse of discretion.

d) Pioneer Sought the Division's Cooperation on Developing a Methodology for Measuring Credits.

The Division's statement that Pioneer did not provide a methodology for measuring credits ignores the fact that Pioneer specifically requested that the Division work with it to develop such a methodology. One element of Pioneer's proposal was that "the calculated trade credits for streambank stabilization and best management practices will be verified through annual inspections of the projects, and project repairs as necessary." Ex. P-08 at 1 (Dec. 18, 2013 Sandquist Letter). This request is consistent with the Colorado Pollutant Trading Policy in which the Division "encourages stakeholders contemplating innovative projects to contact the Division to discuss possible trading scenarios." *See* Ex. P-59 at 6 (Colorado Pollutant Trading Policy (October 2004)). The Division's decision to reject Pioneer's proposal on this basis without first conferring about an appropriate methodology is arbitrary, capricious, and an abuse of discretion.

e) The Regulations Encourage Innovative Approaches Such As Pioneer's.

The Division's decision to reject the permit modification was inconsistent with 5 C.C.R. § 1002-31.13(5), which allows for unique approaches in establishing and implementing effluent limits: "When proposed by a discharger, innovative solutions or management approaches may be used to achieve and maintain water quality standards and may be integrated into discharge permits where appropriate." 5 C.C.R. § 31.13(5); Ex. P-60 (EPA Water Quality Trading Policy,

Jan. 13, 2003) (“[T]he policy is intended to encourage voluntary trading programs that facilitate implementation of TMDLs, reduce the costs of compliance with [Clean Water Act] regulations, establish incentives for voluntary reductions and promote watershed-based initiatives. A number of states are in various stages of developing trading programs.”). Indeed, the Colorado Pollutant Trading Policy expressly recognizes that one type of innovative solution is a trade “involving habitat restoration.” *See* Ex. P-59 at 6 (Colorado Pollutant Trading Policy (October 2004)). The Division’s unexplained rejection of these policies is arbitrary, capricious, and an abuse of discretion.

f) The Alternative Options Advocated by the Division Already Proved Ineffective.

The Division’s finding that Pioneer failed to comprehensively research other options for meeting iron limitations is not supported by substantial evidence. Prior to requesting modification to include the Proposed Iron Trading Modification, Pioneer investigated three other options for reducing iron concentrations (i.e., enhanced oxidation/aeration; settling and filtration; and ponds and settling), but they proved ineffective. *See* Ex. P-03 at 12 (47767 Fact Sheet); Ex. P-17 at 10 (47776 Fact Sheet); Ex. P-38 at 9-10 (48003 Fact Sheet); Ex. P-08 at 1 (Dec. 18, 2013 Sandquist Letter). The February 6, 2015 Fact Sheets found Pioneer’s decision not to test flocculants to be dispositive, but flocculant testing was not required by the Permits’ existing Compliance Schedules. The denial of XTO’s proposal on this basis is also arbitrary, capricious, and an abuse of discretion, and is not based on substantial evidence.

D. The Division Erroneously Denied Pioneer’s EC/SAR Modification Request.

## 1. Pioneer's Proposal.

On August 7, 2014, Pioneer submitted a request for a compliance schedule in connection with the EC/SAR limitations in all three of the Permits. *See* Ex. P-12 (47767 Permit Modification Form, filed Aug. 7, 2014); Ex. P-33 (47776 Permit Modification Form, filed Aug. 7, 2014); Ex. P-54 (48003 Permit Modification Form, filed Aug. 7, 2014). Pioneer stated that it was experiencing compliance issues with the EC/SAR values that became effective on April 1, 2014 as the result of the February 28, 2014 modification. Ex. P-13 at 1 (Aug. 6, 2014 Sandquist Letter). The February 28, 2014 modification “set the maximum recorded SAR value for each outfall (removing outliers) as the effluent limit to maintain the ‘current condition’ of the Purgatoire River.” Ex. P-04 at 14 (Feb. 28, 2014 Fact Sheet, 47767 Permit); Ex. P-18 at 11-12 (Feb. 28, 2014 Fact Sheet, 47776 Permit); Ex. P-39 at 11-12 (Feb. 28, 2014 Fact Sheet, 48003 Permit). For EC, the February 28, 2014 modification set the EC limitation at the maximum recorded value. Ex. P-04 at 14 (Feb. 28, 2014 Fact Sheet, 47767 Permit); Ex. P-18 at 12 (Feb. 28, 2014 Fact Sheet, 47776 Permit); Ex. P-39 at 12 (Feb. 28, 2014 Fact Sheet, 48003 Permit). Additionally, the modification established flow limits for each outfall, and increased the frequency of required EC/SAR sampling from quarterly to monthly. Ex. P-04 at 14, 16 (Feb. 28, 2014 Fact Sheet, 47767 Permit); Ex. P-18 at 12, 13 (Feb. 28, 2014 Fact Sheet, 47776 Permit); Ex. P-39 at 12, 13 (Feb. 28, 2014 Fact Sheet, 48003 Permit).

Pioneer's primary rationale for requesting a compliance schedule was that the new EC/SAR protocol required monthly sampling, yet the limits were derived from quarterly data. Ex. P-13 at 2 (Aug. 6, 2014 Sandquist Letter). Pioneer suggested that the variability of the underlying data set explained why certain outfalls reported minute exceedances under the new “current condition” limits even though there were no significant changes in field operations. *Id.*

This variability was identified not only in the field, but also under laboratory conditions. *Id.* Compounding the need for additional data, Pioneer noted, was the documented fact that naturally existing geological differences in coal formations create considerable variability in groundwater quality. *Id.* (citing USGS, *Geldon and Abbott*, 1984).

The revised EC/SAR limits resulted in unpredictable, minor exceedances within outfalls. *See* Ex. P-13 at 2 (Aug. 6, 2014 Sandquist Letter). The exceedances are classified as minor because the numeric values were within the laboratory variability for SAR testing.<sup>11</sup> In other words, outfalls that met the limits one day would not on another. Accordingly, Pioneer asked for additional time to gather data to support revised limits and to assess how to comply with those limits. *See* Ex. P-13 at 2-3 (Aug. 6, 2014 Sandquist Letter).

Pioneer proposed a compliance schedule wherein Pioneer would test EC/SAR for a 24-month period and report the monthly average as “report only.” *Id.* at 3. After 12 months, Pioneer would submit its sampling and testing results to the Division. *Id.* At the end of the 24-month period, Pioneer would report its EC/SAR results to the Division and provide recommended steps for EC/SAR compliance, and a schedule for compliance. *Id.* Pioneer cited 5 C.C.R. §§ 1002-61.8(3)(b) and 1002-61.8(8)(a)(i) as the regulatory basis for the imposition of a compliance schedule. *Id.* at 1-2. Pioneer sought a 24-month report-only compliance period, it did not suggest that the existing EC/SAR levels should be discarded.

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<sup>11</sup> EPA’s approved laboratory procedures for sodium analysis have an inherent 20% variability; SAR calculations may meet the SAR limit but for the 20% error range. See Section III(D)(4)(f), below.

## 2. The Division's Denial.

The Division rejected Pioneer's EC/SAR proposal in Fact Sheets dated February 6, 2015. *See* Ex. P-03 at 4-7 (47767 Fact Sheet); Ex. P-17 at 3-6 (47776 Fact Sheet); Ex. P-38 at 3-5 (48003 Fact Sheet). The Division misinterpreted Pioneer's request for a period of report-only monitoring as a request to remove the new EC/SAR limitations indefinitely. *See* Ex. P-03 (47767 Fact Sheet); Ex. P-17 (47776 Fact Sheet); Ex. P-38 (48003 Fact Sheet). This, the Division found, did not meet the WQCA's definition of "compliance schedule," which requires "an established sequence of actions leading to compliance." Ex. P-03 at 6-7 (47767 Fact Sheet); Ex. P-17 at 4-5 (47776 Fact Sheet); Ex. P-38 at 4-5 (48003 Fact Sheet). Additionally, the Division found that Pioneer had not demonstrated a need for a Permit-wide compliance schedule, as only certain outfalls reported exceedances. Ex. P-03 at 7 (47767 Fact Sheet); Ex. P-17 at 5-6 (47776 Fact Sheet); Ex. P-38 at 5 (48003 Fact Sheet). Finally, the Division rejected, without elaboration, Pioneer's claim that the underlying data set was not sufficiently robust. Ex. P-03 at 7 (47767 Fact Sheet); Ex. P-17 at 6 (47776 Fact Sheet); Ex. P-38 at 5-6 (48003 Fact Sheet).

## 3. The Division's Modification.

Although Pioneer did not request it, the Division established a revised SAR approach based on the lower confidence limit ("LCL") method developed for the 2016 Listing Methodology, in which the LCL concentration of the reported value (i.e., 85th percentile) would be compared to the effluent limitations. Ex. P-03 at 7-10 (47767 Fact Sheet); Ex. P-17 at 6-9 (47776 Fact Sheet); Ex. P-38 at 6-8 (48003 Fact Sheet); *see also* Ex. P-63 (Appendix B – Statistical Method Used for Compliance Determinations for SAR). By contrast, the limits in the

February 28, 2014 modification were based on a 30-day average. Ex. P-03 at 6-7 (47767 Permit); Ex. P-17 at 4 (47776 Permit); Ex. P-38 at 4 (48003 Permit).

#### **4. Errors in the Division's Response.**

The Division's rejection of Pioneer's August 6, 2014 requests for EC/SAR compliance schedule and its imposition of the SAR revised approach were arbitrary, capricious, in excess of the Division's authority, and an abuse of discretion for several reasons:

a) Pioneer Did Not Request the Removal of All EC/SAR Limits.

The Division mischaracterized Pioneer's request. Pioneer did not request that the underlying EC/SAR limits be removed for an undetermined amount of time. Instead, Pioneer asked for a 24-month period of "report only" monitoring that would allow for additional data gathering in order to determine whether the EC/SAR limits should be modified or compliance with those limits determined in another manner. *See* Ex. P-13 at 3 (Aug. 6, 2014 Sandquist Letter); Ex. P-14 (Ex. A to Aug. 6, 2014 Sandquist Letter). It has been standard procedure by the Division to retain numeric discharge limits in permits subject to compliance schedules, but those limits do not take effect until the compliance schedule expires.

b) A Compliance Schedule Is Necessary.

There is a demonstrated need for a compliance schedule. As noted in the modification request, the outfalls exhibit considerable unpredictability under the new limits and new monthly reporting requirements. *See* Ex. P-13 at 2 (Aug. 6, 2014 Sandquist Cover Letter). Many outfalls would randomly demonstrate minor exceedances from test to test. This was the case for both

SAR and EC. Permit-wide compliance schedules for both SAR and EC are needed to address this unpredictability, not merely to bring a handful of outfalls into compliance.

c) The Data Lack Robustness.

The data sets on which the EC/SAR limits were based were insubstantial; the Division does not sufficiently explain its conclusion that they were sufficiently robust to permit development of EC/SAR limits. *See* Ex. P-03 at 7 (47767 Fact Sheet) (“The Division disagrees with the assertion that the data set was not robust simply due to quarterly sampling. The Division maintains that the data used in setting the current permit limitations for EC and SAR was based on a representative data set that was adequate for evaluating ‘current condition.’”); Ex. P-17 at 6 (47776 Fact Sheet); Ex. P-38 at 6 (48003 Fact Sheet). The Division suggested its analyses took into account hundreds of data points for each permit, but this is as misleading as it is true: the Division’s analyses were done on a per-outfall basis, and there were at most fifteen data points per outfall. *See* Ex. P-03 at 6 (47767 Fact Sheet) (“The Division based the ‘current condition’ effluent limitations on 15 data points from each outfall from January 2010 through September 2013.”); Ex. P-17 at 6 (47776 Fact Sheet); Ex. P-38 at 6 (48003 Fact Sheet). Indeed, Pioneer’s proposal was designed to provide the Division with hundreds of data points per outfall in the hope that with the data set thus fortified would permit a more informed discussion of appropriate EC/SAR limits for each outfall. However, the Division chose to proceed with determining EC/SAR limits based on a much more limited dataset. Moreover, the Division inappropriately cited the naturally occurring variability of EC/SAR levels in support of its decision. To the contrary, this variability counsels in favor of generating a larger sample size that properly accounts for such variability.

d) The Division Exceeded its Regulatory Authority by Crafting Its Own Modification.

The Division's issuance of new permit modifications for EC/SAR exceeds the authority delegated to the Division regarding permit modifications. Specifically, the Division is authorized to undertake permit modifications "at the request of a permittee or any other interested person." 5 C.C.R. § 1002-61.8(8)(c). In this case, Pioneer requested specific permit modifications. The Division has denied those. The denials should have concluded any Division actions. However, instead of standing on that denial, the Division proceeded to issue its own permit modifications.

Pioneer did not submit requests for the permit modifications issued by the Division for EC/SAR. The regulations state that the Division can only make a modification when it finds "the permittee or interested person has shown reasonable grounds consistent with federal and state statutes and regulations for such modifications. . ." 5 C.C.R. § 1002-61.8(8)(c)(ii). This leaves the Division without any option other than undertaking the requested permit modification or denying the request. The Division had the option of requesting additional information from the permittee prior to reaching its decision. Such information could have supported a revised permit modification (that would be submitted by the permittee). No such formal request was issued. The Division's role in a permittee-requested permit modification is not to develop a permit modification itself. Even minor permit modifications cannot be made by the Division alone. Such permit modifications are required to be presented "upon consent by the permittee." 5 C.C.R. § 1002-61.8(8)(f).

e) The Revised SAR Approach Increases Variability.

The revised SAR approach is inappropriate given the small sample size. While the LCL approach is intended to account for variability, the Division's choice to discard the upper 15 percent of an already thin number of data points actually increased the variability of the dataset. This is especially true of the dataset here because the spread in data values is large. The Division's revised approach thereby exacerbated the problems caused by the limited dataset. The result is that Pioneer cannot predict the compliance of specific outfalls, and therefore cannot appropriately manage or mitigate them to avoid exceedances. In addition, the imposition of flow limitations by outfall makes mitigation all the more difficult by reducing Pioneer's operational flexibility, removing its ability to transfer water between outfalls to meet EC/SAR requirements. While the Division may impose limits for certain measure of pollutants, it is beyond the Division's authority to set limits on flow. *See Va. Dept. of Transp. v. U.S. EPA*, No. 12-775, 2013 WL 53741 (E.D. Va., Jan. 3, 2013) (finding that the EPA exceeded its statutory authority under the Clean Water Act by establishing a permit limit on the amount of water flowing into a water body). In this case, the imposed flow limits exacerbate Pioneer's ability to comply with the Division's EC/SAR limits..

f) The Revised SAR Approach Does Not Account for Laboratory Imprecision.

The revised SAR approach is also inappropriate due to unavoidable variability in laboratory test results. Pioneer originally proposed an 85th percentile approach incorporating a 20 percent margin of error necessary to account for inherent imprecision in laboratory testing for SAR. Pioneer did not pull this approach out of thin air, but in fact derived it from established EPA testing methodology. Such methodology accounts for the fact that, under laboratory

conditions, the same sample can be analyzed and re-analyzed and the results can vary by as much as 20 percent. *See* Ex. P-77 (Memorandum from K. Quast of Norwest Corp. to Lori Mulsoff, June 17, 2014). From a practical standpoint, variations within this range should have no measurable effect on downstream water used for irrigation, as monitored in the Purgatoire River. *Id.* The Division's rejection of any margin of error amounts to an unfounded presumption that laboratory data are perfectly accurate. Because laboratory data demonstrate unavoidable variability, however, the Division's selection of the LCL approach, which does not take such variability into account, is arbitrary and capricious.

g) The LCL Approach Is Inapplicable.

It was inappropriate for the Division to incorporate the LCL approach contained in Appendix B. That policy is intended for the 303D impaired waters analysis; neither the intent or scope of that draft policy applies to determining discharge limits. Additionally, it is not a final policy, and therefore may change pending the Commission's review. The Division's use of an inapplicable draft policy is arbitrary, capricious, and an abuse of discretion.

h) The Division Misapplies and Misinterprets the "Current Condition" Approach.

The Division's February 28, 2014 Fact Sheet stated the Division's intention to maintain the "current condition" of the Purgatoire River. With the institution of the LCL method, however, the effect is to actually attempt to *improve* the current condition by imposing a limit that discards the top 15 percent of data. The Division's stated effort to accommodate variability has actually made its limitations more stringent than the current condition and shows the arbitrariness of this modification.

Moreover, the Division's purported application of "current condition" standards to individual outfalls is fundamentally misguided. The purpose of the "current condition" approach is to maintain current environmental standards in the receiving body, allowing the permittee some flexibility in the details of its operations so long as the ultimate outcome is satisfactory.<sup>12</sup> Imposing per-outfall limits, however, with no regard for the actual condition of the receiving body, contradicts the very purpose of the "current condition" approach. Such a backward application of the Division's stated methodology is arbitrary and capricious.

E. Request for Stay.

Pioneer requests that the Division stay its (1) adoption, implementation, and enforcement of the challenged EC/SAR limitations currently in effect; (2) adoption, implementation, and enforcement of the WET testing approach and iron limitations in the current permit, which become effective July 1, 2015; and (3) adoption, implementation, and enforcement of the provisions of pending draft Permits related to WET, iron, and EC/SAR, should those provisions become final during the pendency of this appeal. A stay is appropriate for several reasons. First and foremost, enforcement of the challenged requirements and limitations would cause severe harm to Pioneer. Pioneer's testing shows that the WET testing approach and iron and EC/SAR limitations risk Pioneer's compliance with the permit terms and conditions, opening Pioneer up to enforcement actions, citizen suits, and the accompanying costs of fines, damages, and attorneys' fees. Such enforcement actions and citizen suits threaten Pioneer's hard-earned

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<sup>12</sup> "Current condition" is typically used in the context of temporary modifications. *See, e.g.*, 5 C.C.R. § 1002-38.82 ("the Division will assess the current effluent quality, recognizing that it changes over time due to variability in treatment plant removal efficiency and influent loading from industrial, commercial, and residential sources. One necessary element of an approach to maintain the current condition would be a requirement that the total loading from commercial and industrial contributors be maintained at that level as of the date of adoption of the temporary modification and that neither the concentration nor the frequency of high concentration shall increase over historic levels and frequency.").

goodwill and reputations, a harm that cannot be undone. The alternative to noncompliance and irreversible reputational harm is shutting down Pioneer's CBM outfalls. As the Division knows, this process is exceedingly expensive, and often itself irreversible.

In addition to the severe harm to Pioneer, requiring Pioneer to comply with permit terms and conditions later found to be erroneous would adversely affect Pioneer. The remedial measures needed to comply with the new WET testing approach, and iron and EC/SAR limitations would be significant, perhaps impossible. To force Pioneer to undertake this work before hearing its appeal on the substantive issues herein would deprive Pioneer of the benefit of the appeal process. Finally, a stay is appropriate because Pioneer is only seeking a stay of the enforcement of the new modifications imposed by the Division; Pioneer does not ask for a stay of the requirement that it monitor in accordance with the new requirements. Good cause therefore exists for a stay pursuant to C.R.S. § 25-8-406 of the modified WET testing approach as well as the new EC/SAR and iron limitations pending the adjudication of this appeal.

Should the Adjudicator find that a stay is warranted but that the request is not ripe as to the iron and WET limits in the current permit due to those limitations' July 1, 2015 compliance deadline, XTO request that the Adjudicator enter a conditional order that will stay that deadline if this proceeding is not completed by July 1, 2015.

#### **IV. ESTIMATE OF HEARING TIME**

Pioneer estimates that three days will be required to conduct the hearing.

Dated March 9, 2015.

BROWNSTEIN HYATT FARBER SCHRECK, LLP

*s/ Ronda L. Sandquist*

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