

**BEFORE THE ENVIRONMENTAL QUALITY COUNCIL  
STATE OF WYOMING**

IN THE MATTER OF THE APPEAL OF 4W RANCH, )  
RANCH L. HARSHBARGER, AND JEAN SHERWIN ) DOC. NO. 04-3801  
HARSHBARGER AND THEIR OBJECTIONS TO )  
NPDES PERMIT NOS. 51217, 51233 AND 51373 )  
)

**RESPONDENT MERIT ENERGY COMPANY'S PREHEARING  
MEMORANDUM**

**COMES NOW** Merit Energy Company, Respondent herein, by and through its attorneys, Sundahl, Powers, Kapp & Martin and respectfully submits its Prehearing Memorandum as follows:

**FACTS AND LEGAL ISSUES**

On June 1, 2005, the Wyoming Department of Environmental Quality (DEQ), Water Quality Division, issued an NPDES permit, Permit No. WY0051373, to Merit Energy Company. The permit authorized the surface discharge of coal bed methane (CBM) water into various drainages tributary to the Cheyenne River. The permit mandated several effluent limits, including the following: Specific Conductivity, EC-2000 micromhos/cm, Sodium Absorption Ratio, SAR- 10, and pH- 6.5-8.5. Merit's permit was subsequently modified, effective April 10, 2006, changing the upper limit for pH from 8.5 to 9, in accordance with current Wyoming Water Quality Rules, Chapter 2, Appendix H.

Merit Energy Company sought and obtained permits from the Wyoming State Engineer for the construction and use of stock reservoirs. Merit began production of CBM water pursuant to Permit 51373. The ranchers on whose lands the water is produced requested that the water be impounded for their use in stock reservoirs, and

they are important witnesses concerning the benefits they receive from the produced water and its quality.

Petitioners Robert L. Harshbarger and Jean Sherwin Harshbarger, by two page letter dated June 2, 2004, appealed Merit's permit. Also included in this appeal are two permits issued to Bill Barrett Corporation. At the time of Petitioners' appeal, Merit's permit had not been issued. The fact that the "appeal" was filed approximately one (1) year before the NPDES permit was ever issued to Merit is one of the basis for the motion to dismiss. The Harshbargers contend that the permit's effluent limits, particularly with respect to SAR, pH, and EC, do not adequately protect their use of the waters in the Cheyenne River for agricultural irrigation.

Merit Energy filed a Motion to Dismiss on August 17, 2006. It is significant that the Petitioners cannot prove any have no evidence that any of the produced water ever reaches their lands, that the water quality is bad, or that they have any degradation to their crops or agricultural operations because of the issuance of the permit. This motion is currently pending before the Council. Merit Energy hereby incorporates by reference each and every argument and legal issue raised in said Motion as if set out fully herein.

#### **WITNESSES**

1. Terry L. Friedlan, Gillette Laboratory Manager, Energy Laboratories, Inc. 1105 West First Street, Gillette, WY 82716, may be called as a witness and if called will testify in accordance with his earlier designation which was filed with the EQC and served on all parties.

2. Brian Heath, ARCIDIS G&M, Inc, formerly Greystone Environmental, Inc., 721 East 16<sup>th</sup> Street, Cheyenne WY 82001, may be called as an expert witness. If

called, he will testify in accordance with his earlier designation which was filed with the EQC and served on all parties.

3. Harry Underwood, 6765 State Highway 59S, Gillette, WY, 82718, may be called to testify and if called, will testify concerning his use of the water obtained from Outfalls 1 and 2, the benefits he has received from the water, and that there has been no adverse effects to his crops or his livestock from the use of the water. Harry Underwood will testify that the soil conditions on his ranch are sandy. He will also testify that at his request, Merit Energy constructed a stock reservoir to contain the produced CBM water. Mr. Underwood will testify that he uses the stock reservoir for his livestock, and it is important to his ranching operation. He will testify regarding the good quality of the water, and that he sees no adverse impact on his agricultural operations. He will also testify that he desires the water to continue and that the water does not leave his property.

4. Thomas Edwards, 94 Edwards Rd., Gillette, WY, 82718, may be called to testify and if called, will testify concerning his use of the water obtained from Outfall 3 (10), the benefits he has received from the water, and that there has been no adverse effects to their crops or their livestock from the use of the water. He will also testify that the water is of good quality and that they desire the continued use of it for their operation. The Edwards will also testify that as part of Merit Energy's CBM operation, an existing stock reservoir was improved and used for CBM water retention. They will also testify that said reservoir has not yet filled to capacity, and no water is going down the draw below the reservoir. In addition, Mr. Edwards will testify that before the development of CBM water by Merit Energy, they had no water on the portion of their ranch where the

CBM water is being utilized and that the water is completely used by their operation; no water could possibly arrive at Petitioner's ranch.

5. Steve Kalberer, Foreman, Merit Energy Company, 1601 E 6<sup>th</sup> Street, Suite B, Gillette WY 82716-4654, 307-685-1400, may be called as a witness and if called, will testify regarding the Merit Energy Company CBM outfalls subject to NPDES Permit No.: 51373. Mr. Kalberer is Merit Energy Company's foreman responsible for the CBM outfalls that are the subject of this appeal. If called, Mr. Kalberer may testify regarding the NPDES permit that Merit has obtained for the subject outfalls. He may also testify regarding the permits obtained by Merit from the Wyoming State Engineer allowing Merit to construct various stock reservoirs to collect and hold CBM water. Mr. Kalberer may also testify regarding the amount of CBM water produced by Merit pursuant to the subject NPDES permit, as well as the system employed to handle the CBM water following production. Specifically, Mr. Kalberer may testify that the produced CBM water is placed in the above-mentioned stock ponds, and that with the occasional exception of Outfall 2, no produced water ever leaves the stock ponds. With respect to Outfall 2, Mr. Kalberer may testify to the limited quantities and rates of water that leaves the reservoir from the overflow pipe, and his observations that said water disappears into the soil within a few hundred yards of the discharge point.

If called, it is anticipated that Mr. Kalberer will explain and sponsor some of the photographs of the Merit Outfalls that he has taken. Mr. Kalberer may also testify about the fluctuations in water production from the Merit Outfalls, as well as the decrease in production that has occurred over time. Mr. Kalberer may also testify regarding the

methods and means whereby Merit Energy collects CBM water samples and delivers them to Energy Laboratories, Inc. in Gillette, Wyoming, for analysis.

7. Aaron M. Larson, Environmental Program Scientist  
Water Resources Assistance Program Dept of Environment and Natural Resources 2050  
West Main, Suite #1 Rapid City, SD 57702-2493  
ph: 605-394-2229 may be called as a witness and if called will testify regarding his  
department's testing of water on the Cheyenne River near the South Dakota border. Mr.  
Larson is a researcher with the State of South Dakota and has been heavily involved with  
that State's water quality analysis on the Cheyenne River. If called, Mr. Larson will  
testify as to the data he and his department have compiled, including the location of the  
testing sites and the specific parameters they test for. He may sponsor the exhibits  
pertaining to his department's data.

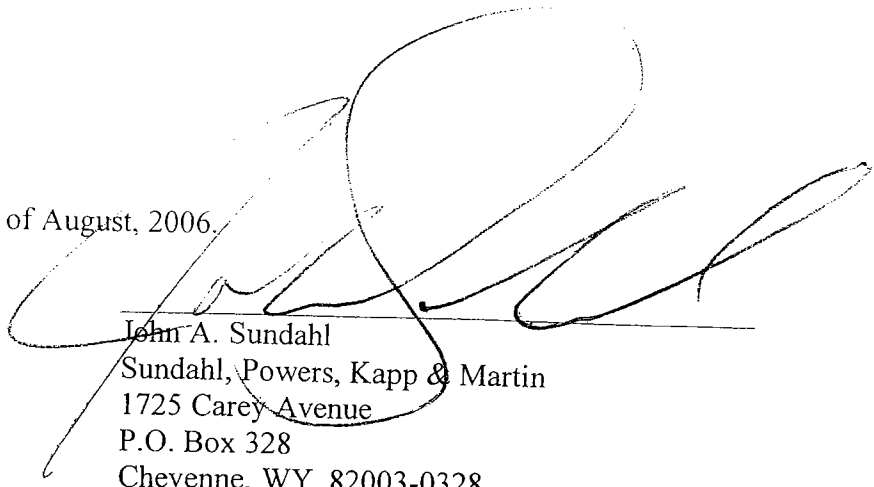
8. Merit Energy Company reserves the right to call any witnesses listed by  
any party in this matter.

9. Merit Energy Company reserves the right to call rebuttal and or  
impeachment witnesses.

## **EXHIBITS**

See attached exhibit list.

DATED this 18 day of August, 2006.



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Attorney for Merit Energy Company

**CERTIFICATE OF SERVICE**

I certify the foregoing pleading was served on this 18 day of August, 2006, and that copies were served as follows:

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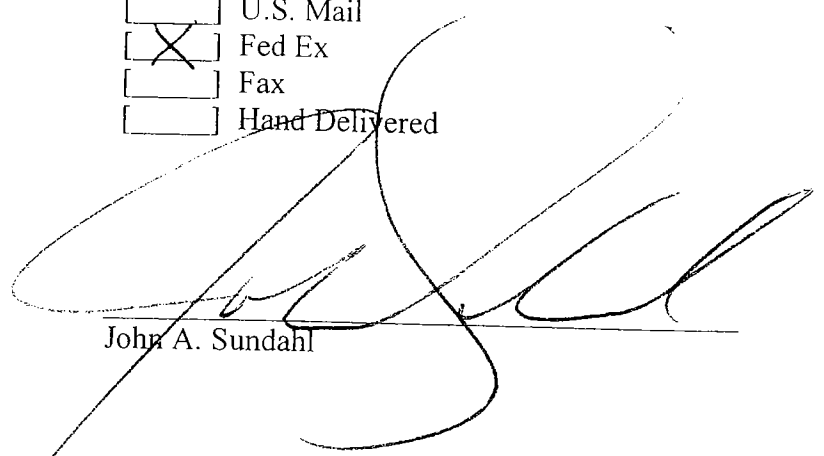
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John A. Sundahl

## MERIT ENERGY COMPANY'S EXHIBIT LIST

1. Merit Energy Company's NPDES Permit No. WY0051373.
2. Major Modification to Permit No. 51373.
3. Map of area in question – Depo Exhibit 7 from the Harshbarger deposition.
4. Laboratory Analytical Reports from Energy Laboratories, Inc., 1105 West First Street, Gillette WY 82716, 307-686-7175 on Outfall 1.
5. Laboratory Analytical Reports from Energy Laboratories, Inc., 1105 West First Street, Gillette WY 82716, 307-686-7175 on Outfall 2.
6. Laboratory Analytical Reports from Energy Laboratories, Inc., 1105 West First Street, Gillette WY 82716, 307-686-7175 on Outfall 3 (10).
7. Tables depicting a summary of the results from laboratory reports to be used as and exhibit or demonstrative exhibit.
  - 7a. Outfall 1
  - 7b. Outfall 2
  - 7c. Outfall 3(10)
8. Graphs depicting a summary of the results from laboratory reports to be used as and exhibit or demonstrative exhibit.
  - 8a. Specific Conductance Outfall 1
  - 8b. Specific Conductance Outfall 2
  - 8c. Specific Conductance Outfall 3
  - 8d. SAR Outfall 1
  - 8e. SAR Outfall 2
  - 8f. SAR Outfall 3
  - 8g. PH Outfall 1
  - 8h. PH Outfall 2
  - 8i. PH Outfall 3
9. Photos showing Outfall 1.
10. Photos showing Outfall 2.
11. Photos showing Outfall 3 (10).
12. Letter dated December 15, 2003 from Harry and Harriett Underwood.
13. Demonstrative exhibits from USGS showing daily discharge, cubic feet per second measured at Cheyenne River near Dull Center, Wyoming.

14. Demonstrative exhibit showing daily mean discharge, cubic feet per second measured at Cheyenne River near Dull Center, Wyoming from USGS.
15. Tables of Water Quality Samples for Cheyenne River near Dull Center, Wyoming for Specific Conductance, PH Water, and Sodium Absorption Ratio.
16. Table depicting results from South Dakota reports to be used as demonstrative exhibit.
17. Graphs depicting results from South Dakota reports to be used as demonstrative exhibit.
18. Table showing distances from each Outfall to the Point of Diversion by the 4W Ranch.
19. Exhibit showing amounts of water pumped from the CBM.
20. Infared map of Tuit Draw Station relative to the point of diversion
21. Ambient water quality as measured at Antelope Creek at the USGS Station.
22. Ambient water quality as measured at Cheyenne River at the USGS Station.
23. Ambient water quality as measured at Teckla Station at the USGS Station.
24. Summary of Water Quality Data obtained from USGS Stations and Merit Energy Company Tuit Draw Outfalls.
25. Merit Energy Company reserves the right to use any exhibits from the deposition of Major Harshbarger, documents produced by Petitioners in their responses to discovery and listed by any other party in this matter including those exhibits from the Wyoming Attorney General's Office.
26. Merit Energy Company reserves the right to enlarge any exhibits listed by any of the parties to be used as exhibits in this matter.