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Terri A. Lorenzon, Director  
Environmental Quality Council

SETTLEMENT AGREEMENT

THIS SETTLEMENT AGREEMENT is entered into by Edward H. Swartz and Troy Swartz (collectively, Swartz); Yates Petroleum Corporation, Redstone Resources, Inc., J.M. Huber Corporation, Devon Energy Production Company, L.P., and Pennaco Energy Inc. (collectively, the Operators); and the Wyoming Department of Environmental Quality (DEQ), [collectively, the Parties], effective September 30, 2003.

WHEREAS the Parties are currently engaged in proceedings before the Wyoming Environmental Quality Council (EQC) concerning the terms and conditions of NPDES permits for the discharge of water produced in association with coalbed methane (CBM) in the Wildcat Creek drainage in Campbell County; and

WHEREAS some of the Parties are currently engaged in proceedings before the U.S. District Court for the District of Wyoming concerning allegations related to or arising from discharges under certain NPDES permits in the Wildcat Creek drainage; and

WHEREAS the Parties agree that such proceedings are burdensome, expensive and unlikely to lead to a mutually satisfactory resolution; and

WHEREAS the Wildcat Creek drainage is an ephemeral/intermittent watershed in the Powder River Basin with distinctive topography, water, hydrology, soil, and vegetation conditions; and

WHEREAS the Parties agree that resources presently spent on litigation can be better spent on developing a common technical understanding.

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth herein, the Parties have AGREED to the following:

1. Purpose and Object. This Settlement Agreement provides for the issuance of NPDES permits in the Wildcat Creek drainage and the development and implementation of sampling and monitoring plans to allow for the discharge and use of CBM water consistent with DEQ Water Quality Rules and Regulations (WQRR) Ch. 1, §§ 8 and 20, in lieu of the administrative and legal proceedings presently underway before the EQC and the U.S. District Court for the District of Wyoming.

2. NPDES Permits. The Wildcat Creek drainage is an ephemeral/intermittent watershed in the Powder River Basin with distinctive topography, water, hydrology, soil, and vegetation conditions. Subject to public notice and comment, the DEQ agrees to issue to the Operators NPDES permits containing the terms and conditions set forth in the draft permit attached hereto as Exhibit "A" for all discharges of CBM water into the Wildcat Creek drainage ("Permit" or "Permits"). The Permits will state that the terms and conditions are specific to the Wildcat Creek drainage. The Operators do not concede that the terms and conditions of the Permits are necessary or appropriate, but have agreed to them in the interest of settlement.

2.1 Permit Terms. The Permits will contain terms including, but not limited to, the following:

2.1.1 Effluent Limits for Irrigable Flows. The effluent limits for irrigable flows for specific conductance (EC) and sodium adsorption ratio (SAR) are:  $EC = 2.5 \text{ dS/m}$  at the outfall;  $SAR \text{ of } < (7.10 \times EC \text{ dS/m}) - 2.48$  at the terminus of the attenuation zone as defined in each Permit; provided that, the EC value to be used in the foregoing SAR equation shall be the EC measured at the terminus of the attenuation zone.

2.1.2 Effluent Limits for Non-Irrigable Flows. The effluent limits for non-irrigable flows are:  $EC = 7.5 \text{ dS/m}$  at the outfall, and the Permits shall require no effluent limit for SAR.

2.1.3 Definition of Irrigable Flow. Irrigable flow means the flow rate measured at the terminus of the attenuation zone that is capable of causing the irrigation system at the first point of diversion that predates CBM development downstream of the terminus of the attenuation zone to spread water over the fields at a volume that will result in significant irrigation, even if the flow is unrestrained. The irrigable flow shall be set forth in each Operator's Permit application and shall be subject to approval by the DEQ.

2.1.4 Definition of Non-Irrigable Flow. Non-irrigable flow means any flow rate measured at the terminus of the attenuation zone that is less than the irrigable flow.

2.1.5 Additional Monitoring. If the DEQ determines, in its discretion, that the terminus of the attenuation zone is not in close proximity to the first downstream irrigation point of diversion, it may require the Operator to monitor flow rate, EC, and SAR at the first irrigation point of diversion. The additional monitoring data from the first irrigation point of diversion shall not be used for determining compliance with EC and SAR effluent limits in the Permits; however, the DEQ may consider such data in its evaluation of compliance with WQRR Ch. 1, § 20.

2.1.6 Annual Review. The Operators will submit the Annual Review (identified in Paragraph 3.4) and associated data to the DEQ yearly. The data collected in the Swartz Monitoring Plan will not be used as an effluent limit or for other compliance under the Permits; however, it is understood that DEQ retains its authority to reopen the Permits as allowed by law or regulation.

2.2 Permit Enforcement for Irrigable Flow Containing Commingled CBM Water Discharges.

2.2.1 When non-irrigable flow discharged by an NPDES permittee is commingled with discharges from one or more other permittees, the permittees shall coordinate discharges to assure that the flows at all downstream terminuses

of attenuation zones do not exceed the irrigable flow without meeting the irrigable flow effluent limits.

2.2.2 Submission of Data for Permit Enforcement. When non-irrigable flow discharged by an NPDES permittee is commingled with discharges from one or more other permittees and exceeds the irrigable flow and the effluent limits at the terminus of an attenuation zone, the permittee at whose terminus the exceedence occurred shall immediately notify DEQ and all upstream permittees. All upstream permittees shall submit all water quality monitoring and flow rate data for the current monitoring period to DEQ immediately after receipt of notice of the exceedence, or as soon thereafter as lab analyses are available. The DEQ retains its authority to enforce the Permits as allowed by law or regulation.

2.2.3 The permittee shall monitor flow at the terminus of the attenuation zone daily. When there is irrigable flow at the terminus of the attenuation zone, the permittee shall sample for SAR.

2.3 Permit Submittals. The DEQ and the Operators agree the Operators will submit the following information to DEQ in their Permit applications:

2.3.1 Water Administration Plan. The Operators will submit for DEQ review and approval, a Water Administration Plan which identifies (i) the location, size, and design of reservoirs, if any, (ii) infiltration rates, (iii) methods to minimize channel erosion, (iv) the location of surface water irrigation diversion points, (v) the location of the terminus of an attenuation zone for SAR upstream of the first downstream surface water irrigation diversion point, and whether such diversion point predates CBM development, and (vi) taking into account landowner interests and requests, how the Operator will prevent Wildcat Creek from becoming a perennial stream due to the Operator's CBM water discharges.

2.3.2 Sampling and Monitoring Protocol. The Operators will submit the sampling protocol for soil baseline, crop baseline, any reasonably necessary water baseline, and ongoing soil, crop, and water quality monitoring (identified in Paragraph 3.3 as the "Protocol"). Prior to issuing the Permits, the DEQ will review and approve the Protocol to determine if it is reasonably designed to satisfy WQRR Ch. 1, § 20 analysis for identifying if there are any trends likely to result in a measurable decrease in crop production on Swartz's irrigated lands ("Swartz Irrigated Lands") due to CBM water. The Protocol will be incorporated by reference in the Permits. The Operators will submit any changes to the Protocol for DEQ review and approval as set forth in this paragraph.

2.3.3 Support for Effluent Limits. The Operators will submit for DEQ review and approval, scientific and technical support for the effluent limits for EC and SAR during irrigable flows as identified in Paragraph 2.1.1.

2.3.4 Process for Determining an Exceedence. The Operators will submit a process for determining the contribution of their CBM water, if any, to

an effluent limit exceedence when non-irrigable flow discharged by an NPDES permittee is commingled with discharges from one or more other permittees at the terminus of an attenuation zone and exceeds the irrigable flow and the effluent limits at that point. The DEQ may use this process to determine whether the exceedence is due to CBM water and, if so, the permittee(s) whose CBM water discharge caused the exceedence. It shall be an affirmative defense for a permittee to prove that it was not discharging CBM water during the period that would contribute to the exceedence.

2.4 The Permits will be enforceable, stand-alone documents.

3. Swartz Monitoring Plan. In the interest of settlement, the Operators have agreed to conduct certain baseline sampling and ongoing monitoring ("Swartz Monitoring Plan") on the Swartz Irrigated Lands. The Swartz Monitoring Plan will be designed to provide for the assessment of short and long-term impacts of irrigation using CBM water and natural flows on the Swartz Irrigated Lands.

3.1 Design. The Swartz Monitoring Plan will involve the following elements: (a) an irrigation management plan; (b) the Permits (as described in Paragraph 2); (c) a sampling and monitoring protocol; (d) annual review; and (e) procedures for resolution of technical disagreements. Swartz and the Operators agree to implement the Swartz Monitoring Plan in good faith.

3.2 Irrigation Management Plan. The Irrigation Management plan will include how and when Swartz will implement the spreader dam system and, taking into account the desires of other landowners in the Wildcat Creek drainage, the quantity, quality and timing of water delivered to Swartz.

3.3 Sampling and Monitoring Protocol. The sampling and monitoring protocol ("Protocol") will include the following provisions:

3.3.1 Collection of soil, crop, and any reasonably necessary water baseline data on the Swartz Irrigated Lands.

3.3.2 Ongoing soil and crop monitoring programs in which data is collected on Swartz Irrigated Lands to assess trends in salinity and sodicity in the soils and crop yields and the influence of CBM water on those trends.

3.3.3 An ongoing water quality monitoring program to assess the influence of CBM water.

3.4 Annual Review. An annual review of the soil, crop, and water quality monitoring data on Swartz Irrigated Lands ("Annual Review") will be conducted to determine if there are any trends that are likely to result in a measurable decrease in crop production on the Irrigated Lands and to determine whether there should be any modifications to the Protocol. The Annual Review will identify and account for other changes which may have occurred on the Swartz Irrigated Lands during the review

period (e.g. changes to agricultural practices, management, or methods) and analyze the independent impacts of CBM water application on the Swartz Irrigated Lands.

3.5 Resolution of Technical Disagreements. The Swartz Monitoring Plan will include an agreed-upon mechanism for resolving any disputes between Swartz and the Operators over implementation and modification to the Protocol.

4. Landowner Access. The Operators will cooperate in good faith with the DEQ and undertake all reasonable efforts to assist the DEQ in resolving its right to inspect permitted facilities. The Permits will not require the Operators to provide landowner consent to the DEQ's access to perform inspections of the Operators' permitted facilities. Nothing in this paragraph shall prevent the DEQ from exercising its authority as needed to fulfill its duties.

5. Releases and Consideration. In consideration of this Settlement Agreement and the issuance of the Permits, the Parties agree to the following:

5.1 The DEQ, the Operators, and Swartz agree to the stay of the consolidated appeals in EQC Docket No. 02-3801 and consent to remand to the DEQ in accordance with this Settlement Agreement. Swartz and the Operators shall withdraw their appeals in EQC Docket No. 02-3801 upon issuance of new, final Permits to the Operators for those NPDES permits under appeal and for other currently pending NPDES permits for discharges of CBM water into the Wildcat Creek drainage, containing the terms and conditions set forth in the draft permit attached as Exhibit "A", or other terms and conditions accepted by the Operators, and the exhaustion of all appeals of such permits. If the Permits are not so issued, the Operators reserve the right to reinstitute their appeals in which event this Settlement Agreement shall be of no further force and effect. If the Operators reinstitute their appeals, then Swartz may enter his appearance as a party in the proceedings.

5.2 Upon signing of the Settlement Agreements, Swartz agrees to execute a full release and settlement agreement dismissing with prejudice Civil Action No. 02-CV-044B against Redstone Resources, Inc. and the DEQ and any of its employees or officers, and to refrain from bringing a similar suit against any Parties to the Settlement Agreements related to the Permits and CBM water in the Wildcat Creek drainage for the duration of the Settlement Agreements.

5.3 Swartz agrees to deliver to the State Engineer a letter affirming that the Water Administration Plan in this Settlement Agreement constitutes a Water Administration Plan as required by the State Engineer. However, Swartz does not agree to waive any State Engineer policy being applied to newly constructed on-channel reservoirs which might require downsizing or elimination of reservoirs upon the cessation of CBM discharges.

5.4 Swartz agrees and covenants not to bring any administrative or judicial action against any of the Parties in any forum based on any alleged violation of an NPDES permit, the EQA, the CWA, State Engineer requirement or any other common law ground, except as provided in this Settlement Agreement. Swartz further agrees not

to object to any new or modified draft NPDES permit or to appeal any final NPDES permit for discharges into the Wildcat Creek drainage containing terms not inconsistent with this Settlement Agreement.

5.5 Swartz, on behalf of himself, his predecessors, assignors, successors and assignees, jointly and severally, hereby releases and forever discharges the Operators and the DEQ from any and all claims, demands, losses, damages, actions and causes of action, of any nature whatsoever, known or unknown, discovered or undiscovered, which he now holds or has ever held against the Operators or the DEQ, their predecessors or assignees, prior to and including the date of the execution of this Settlement Agreement.

5.6 The State of Wyoming agrees to take no further action with respect to any outstanding Notice of Violation, Letter of Violation, or referral to the Attorney General concerning any alleged violation of the Operator's NPDES Permits, the Environmental Quality Act, or the Clean Water Act arising from or relating to discharges of CBM water in the Wildcat Creek drainage prior to the date of this Settlement Agreement.

5.7 The existing NPDES permits shall remain in effect until the Permits are issued and become final.

5.8 All Parties agree to cooperate in good faith in the implementation of this Settlement Agreement and to refrain from further enforcement actions, administrative or civil judicial litigation against any other Party to this Settlement Agreement for activities in the Wildcat Creek drainage prior to the date of this Settlement Agreement. It is understood and agreed, however, that DEQ retains all its statutory and regulatory authority, including the authority to pursue future permit violations, to reopen the Permits pertaining hereto as allowed by law and regulation, and to seek enforcement of this Settlement Agreement in any permissible administrative or judicial forum.

5.9 Nothing herein relieves the Operators from their obligation to comply with applicable provisions of the federal Clean Water Act, the Wyoming Environmental Quality Act, and the Wyoming Water Quality Rules and Regulations.

6. Costs and Attorneys Fees. Each Party agrees to bear its own costs and attorneys fees in the consolidated appeals in EQC Docket No. 02-3801 and Civil Action No. 02-CV-044B referenced in this Settlement Agreement and the Parties expressly waive any claims for such fees or costs related to said actions which may arise under any state or federal statute or regulation providing for the recovery of attorneys fees and/or costs by a prevailing party.

7. Time. Time is of the essence hereof with respect to each provision in this Settlement Agreement. The Parties agree to make their best efforts toward issuance of the Permits prior to the 2004 irrigation season. The Operators will supplement or submit their Permit applications to the DEQ for review on or before December 22, 2003, and the DEQ will issue the draft Permits for public comment on or before January 28, 2004, provided the Permit applications are complete and technically adequate. The foregoing deadlines may be extended by agreement of the Parties which shall not be unreasonably denied. In addition, the DEQ

retains its authority to conduct a complete review of the applications and comply with all applicable laws and regulations in processing the applications.

8. Entire Agreement. This Settlement Agreement, including the attachments, contains the entire agreement among the Parties pertaining to the subject matter hereof and fully supersedes all prior agreements and understandings among the Parties pertaining to such subject matter, except the Settlement Agreement between the Operators and Swartz, dated \_\_\_\_\_, and the Settlement Agreement between the DEQ and Swartz, dated, \_\_\_\_\_, which survive this Settlement Agreement. No change in or amendment to this Settlement Agreement shall be valid unless set forth in writing and signed by all of the Parties after the execution of this Settlement Agreement. It is understood and agreed, however, that DEQ's statutory and regulatory authority to reopen permits, and any resulting change in the Permits, does not require the consent of the other Parties to this Settlement Agreement, provided that the Parties do not waive their legal rights to appeal.

9. Counterparts. This Settlement Agreement may be executed in several counterparts and all such executed counterparts shall constitute the same agreement.

10. Headings, Gender and Number. The section headings used in this Settlement Agreement are intended solely for convenience of reference and shall not amplify, limit, modify or otherwise be used in the interpretation of any provision of this Settlement Agreement. The masculine, feminine or neuter gender and the singular or plural number shall be deemed to include the other whenever the context so indicates or requires.

11. Successors. The provisions of this Settlement Agreement shall be binding upon and inure to the benefit of the successors and assignees of the Parties hereto, to the extent allowed by law.

12. Assignment. This Settlement Agreement and all rights of Swartz and the Operators hereunder may be assigned. An assignment hereunder shall release the assignor from its obligations hereunder if the assignee fully assumes such obligations, provided that such release shall be effective only from the date of assignment, and only for events which begin after the date of assignment. However, the DEQ retains all its statutory and regulatory authority, including the right to pursue enforcement actions against the appropriate party as allowed by law and regulation. The other Parties may look to the assignee for the performance of the assignor's obligations hereunder.

13. Force Majeure. In the event that, for any reason, the performance of any obligation or requirement hereunder is interrupted by reasons including, but not limited to, any accident, fire, drought, acts of God (excluding floods), eminent domain action, court orders, strikes or other labor disputes, civil, military or governmental authority, war, or acts or omissions of third parties, such failure to perform shall not constitute a default of this Settlement Agreement and the Parties may continue this Settlement Agreement in effect until such interruption ceases.

14. Denial of Liability. Each Party to this Settlement Agreement denies any responsibility or liability to any other Party, and each Party enters into this Settlement