

Wyoming Department of Environmental Quality
Water Quality Division
WYPDES Program

STATEMENT OF BASIS

Renewal

APPLICANT NAME: Pennaco Energy, Inc.

MAILING ADDRESS: 3601 Southern Drive
Gillette, WY 82718

FACILITY LOCATION: OK Creek, which is located in the SESW and the NESW, Section 27, the SENW, NWSW, SWNE, and the NESW, Section 28, the NESE, Section 29, the SENE and NWSW, Section 34, and the SWNW, Section 35, Township 54 North, Range 77 West, Sheridan County. The produced water will be discharged to various named, on-channel and reservoirs (3B), and one off-channel reservoir (3B), located on OK Draw (3B), which is a tributary of OK Creek (3B). OK Creek (3B) is tributary to the Powder River (2ABWW). The daily maximum permitted flow rate for this facility is 2.26 MGD. The permit requires that the produced water being discharged at this facility originate in the Anderson and/or Wall coal seams.

NUMBER: WY0042056

General Facility Description

This facility is a typical coal bed methane production facility in which groundwater is pumped from a coal bearing formation resulting in the release of methane from the coal bed. The permit authorizes the discharge to the surface of groundwater produced in this way provided the effluent quality is in compliance with effluent limits that are established by this permit. In developing effluent limits, all federal and state regulations and standards have been considered and the most stringent requirements incorporated into the permit. The *EPA Effluent Guidelines and Standards for Oil and Gas Extraction Point Source Category (Part 435, Subpart E)* predate the development of coal bed methane extraction technology; however the technology is similar enough to conventional gas extraction that, in the professional judgment of the WDEQ, this effluent limit guideline is appropriately applied to coal bed methane gas production. The guideline limits oil and grease effluent concentrations to less than 35 mg/l and requires that discharges of produced water be used to enhance agricultural production and/or wildlife propagation. This permit does not cover activities associated with discharges of drilling fluids, acids, stimulation waters or other fluids derived from the drilling or completion of the wells.

The permittee has chosen option 2 of the coal bed methane permitting options. Under this permitting option, the produced water is immediately discharged to a class 2 or 3 receiving stream which is eventually tributary to a class 2AB perennial water of the state. The permit establishes effluent limits for the end of pipe, which are protective of all the designated uses defined in *Chapter 1 of Wyoming Water Quality Rules and Regulations*. This may include drinking water, game and non-game fish, fish consumption, aquatic life other than fish, recreation, agriculture, wildlife, industry and scenic value. Review of the information submitted in the permit application reveals that there is no irrigation occurring on OK Creek prior to confluence with the Powder River.

Effluent Limits

Permit effluent limits are based on federal and state regulations and are effective as of the date of issuance. The daily maximum effluent flow limit for this facility is 2.26 MGD. The permit requires that the pH must remain within 6.5 and 8.5 standard units. Effluent limits for total dissolved solids (5,000 mg/l), specific conductance (7,500 micromhos/cm), and sulfates (3,000 mg/l) are included to protect for stock and wildlife watering. These limits are based upon *Wyoming Water Quality Rules and Regulations, Chapter 2* and apply to discharge from any permitted outfall.

In addition, the permit establishes a dissolved manganese limit of 630 µg/l and a chlorides limit of 46 mg/l, based upon chronic aquatic life standards established in *Wyoming Water Quality Rules and Regulations, Chapter 1*. The permit also establishes a total barium limit of 1800 µg/l and a total arsenic limit of 7 µg/l, these limits are based on Water Quality Criteria as established in *the Wyoming Water Quality Rules and Regulations, Chapter 1*, for Human Health values. The limits established in this permit for metals and chlorides reflect the application of the antidegradation provisions required under *the Wyoming Water Quality Rules and Regulations, Chapter 1*.

In addition, the permit establishes a dissolved iron limit of 1000 µg/l, which is based upon chronic aquatic life standards for class 3B waters greater than one mile from the confluence of a class 2 water, and reflects the application of standards required under *Chapter 1 of the Wyoming Water Quality Rules and Regulations*. All limits described in this section are intended to protect for the above listed designated uses, on both the immediate receiving water and the perennial mainstem, and apply at the end of pipe.

The permit also establishes total radium limits as follows: a total radium²²⁶ limit of 3 pCi/l for outfalls 002, 003, 005, 007, 008, 009, and 011, which are located between 1 and 3 stream miles of a class 2 water, and a limit of 5 pCi/l for the following outfalls: 004, 006, and 010, which are located less than 9 stream miles but more than 3 stream miles from a class 3 water. The permit also establishes a permit limit of 3 pCi/l for total radium²²⁶ for discharges from outfall 001, which discharges into a hydrologically isolated man-made containment unit located in the Powder River floodplain less than one mile from the main channel of the Powder River. As the containment unit associated with outfall 001 has no direct surface connection to the Powder River, limits protective of class 3B standards are appropriate in this case. The total radium limits are based upon distance from and potential to impact a perennial water of the state of Wyoming, and consider appropriate protections for the perennial class 2 water. These limits all apply to discharge from the appropriate outfall at the end of pipe.

This permit originally established a total radium²²⁶ limit of 1 pCi/l, a dissolved iron limit of 299.7 µg/l, and a total petroleum hydrocarbons (TPH) limit of 10 mg/l at the end of pipe. Based upon water quality data collected by WDEQ since the time this permit was originally issued, a permitting approach for establishing total radium and dissolved iron limits in coal bed methane permits has been developed. This approach is based upon the distance of the outfall from a class 2 water. Raising the originally-established total radium²²⁶ and dissolved iron limits is based on this permitting approach. In addition, review of discharge monitoring report data for this facility and other CBM facilities in Northeast Wyoming indicates that the maximum reported concentrations for total petroleum hydrocarbons (TPH) in the discharge were well below the water quality standard of 10 mg/l established in *Chapter 1 of the Wyoming Water Quality Rules and Regulations*. Therefore, WDEQ has removed the effluent limit and monitoring requirement for TPH in this permit. Based on evaluation of the available data, it is WDEQ's determination that raising the total radium²²⁶ limit and removing the total petroleum hydrocarbons limit from this permit conforms to the anti-backsliding requirements established in *Section 402(o).2.B.i of the Clean Water Act*.

The mixing analyses and water budgets provided by the permittee were based upon an estimated facility flow of 2.26 MGD, and water quality representative of the Anderson and Wall coal seams in the immediate geographical area. Therefore, the permit establishes a flow limit of 2.26 MGD, which is to be calculated as the sum of all discharge at all the permitted outfalls, and requires that the produced water being discharged at this facility originate in the Anderson and Wall coal seams. Because the permittee's mixing analysis relies on dilution with precipitation to prevent impacts related to sodium adsorption ratio and specific conductance to the class 2 perennial water (the Powder River), the permit requires that the operator contain all effluent within the proposed reservoirs during "dry" operating conditions. The reservoirs may discharge in response to precipitation events or upstream reservoir overflow that causes the reservoirs to fill and overtop only. Discharges during precipitation events are limited to natural overtopping only. Intentional discharge from the reservoirs during "dry" operating conditions will be considered a violation of this permit. If requested, it is the permittee's responsibility to adequately demonstrate the circumstances surrounding reservoir discharges.

Monitoring and Reporting

The permit requires sampling at designated water quality monitoring stations located on the receiving stream (OK Creek) and at locations on the mainstem (Powder River, class 2AB water) which OK Creek confluences. Water quality monitoring stations on the Powder River will be located upstream and downstream of the confluence of OK Creek with the Powder River, at the locations described in Table 1, Part I.B.12 of the following permit, established water quality monitoring stations on the mainstem are to be located outside the mixing zone of the tributary with the mainstem. Effluent samples at the designated water quality monitoring stations must be collected on a monthly basis and are to be reported semiannually. If no effluent from this facility intercepts the established tributary monitoring station on OK Creek, then "no discharge" is to be reported and samples need not be collected at the associated water quality monitoring stations for that monthly sampling period. At the designated water quality monitoring stations, monitoring will be required for calcium, chlorides, magnesium, sodium, sodium adsorption ratio and specific conductance. Information gathered from the water quality monitoring stations may result in modification of the permit to protect existing uses on the tributaries and the mainstem.

Results are to be reported twice-yearly and if no discharge occurs at a given outfall for an entire monitoring period, then "no discharge" is to be reported for that outfall during that period. The permit also requires that an initial monitoring of the effluent be conducted within the first 60 days of discharge and the results submitted to WDEQ and the U.S. Environmental Protection Agency within 120 days of the commencement of discharge.

General Requirements

There shall be no discharge of floating solids or visible foam in other than trace amounts, nor shall the discharge cause formation of visible deposits of iron, hydrocarbons or any other constituent on the bottom or shoreline of the receiving water. In addition, erosion control measures will be implemented to prevent significant damage to or erosion of the receiving water channel at the point of discharge.

The discharge of wastewater and the effluent limits that are established in this permit have been reviewed to ensure that the levels of water quality necessary to protect the designated uses of the receiving waters are maintained and protected. An antidegradation review has been conducted and verifies that the permit conditions, including the effluent limitations established, provide a level of protection to the receiving water consistent with the antidegradation provisions of Wyoming surface water quality standards.

Self monitoring of effluent quality and quantity is required on a regular basis with reporting of results

semiannually. The permit is scheduled to expire on June 30, 2007. This expiration date was determined through review of the watershed permitting schedule which the WDEQ is implementing in order to synchronize the permitting and expiration of facilities within the same watershed. This holistic approach will provide for more efficient permitting of point-source discharges.

Kathy Shreve
Environmental Senior Analyst
Water Quality Division
Department of Environmental Quality, Drafted: March 28, 2005

AUTHORIZATION TO DISCHARGE UNDER THE
WYOMING POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act, (hereinafter referred to as "the Act"), and the Wyoming Environmental Quality Act,

Pennaco Energy, Inc.

is authorized to discharge from the wastewater treatment facilities serving the

OK Creek,

located in

SESW and the NESW, Section 27, the SENW, NWSW, SWNE, and the NESW, Section 28, the NESE, Section 29, the SENE and NWSW, Section 34, and the SWNW, Section 35, Sheridan County,

to receiving waters named

various named, on-channel and reservoirs (3B), and one off-channel reservoir (3B), located on OK Draw (3B), which is a tributary of OK Creek (3B). OK Creek (3B) is tributary to the Powder River (2ABWW),


in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II and III hereof.

This permit renewal shall become effective on October 1, 2005.


This permit and the authorization to discharge shall expire at midnight June 30, 2007.



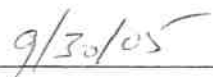
John F. Wagner
Administrator - Water Quality



Date



John V. Corra
Director - Department of Environmental Quality



Date

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Effective July 1, 2005, and lasting through June 30, 2007, the quality of effluent discharged by the permittee shall, at a minimum, meet the limitations set forth below. The permittee is authorized to discharge from outfalls serial numbers 001-011.

1.a. Such discharges shall be limited as specified below:

Effluent Limits

<u>Effluent Characteristic</u>	<u>Daily Maximum, Outfall</u>
Chlorides, mg/l	46
Dissolved Manganese, µg/l	630
pH, standard units	6.5 - 8.5
Specific Conductance, micromhos/cm	7500
Sulfates, mg/l	3000
Total Arsenic, µg/l	7
Total Barium, µg/l	1800
Total Dissolved Solids, mg/l	5000
Total Flow, MGD*	2.26
Total Recoverable Aluminum, µg/l	750
Dissolved Iron, µg/l	1000

*Total flow will be calculated as the sum of all discharge from all permitted outfalls.

b. Distance-based effluent limits by outfall:

In addition to the limits established in Part I.A.1.a of the permit, the following effluent limits apply to outfalls as specified in the table below:

Distance-Based Effluent Limits by Outfall

<u>Outfall</u>	<u>Distance to Nearest Class 2 Stream</u>	<u>Total Radium 226, pCi/l</u>
001	0.68	3
002	1.8	3
003	2	3
004	3.1	5
005	1.6	3
006	3.1	5
007	2.7	3

<u>Outfall</u>	<u>Distance to Nearest Class 2 Stream</u>	<u>Total Radium 226, pCi/l</u>
008	2.9	3
009	2.9	3
010	3.3	5
011	2.4	3

c. Narrative Requirements Applicable at all Outfalls:

The pH shall not be less than 6.5 standard units nor greater than 8.5 standard units in any single grab sample.

The daily maximum permitted discharge flow rate for this facility is 2.26 million gallons per day (MGD). The wells at this facility will discharge effluent originating from the Anderson and/or Wall coal seams. Intentional releases from the reservoirs being utilized for containment of CBM produced water are not allowed, and will be considered a violation of this permit. The reservoirs may discharge in response to precipitation events and/or upstream reservoir overflow that causes the reservoirs to fill and overtop, and is limited to natural overtopping only. In the event of reservoir discharge, it is the permittee's responsibility, if requested, to adequately demonstrate the circumstances surrounding the discharge.

As originally permitted, this facility consists of 11 outfalls and 78 wells. The permittee may, if so desired, discharge produced water from any authorized well to any permitted outfall, as long as all permit requirements and limitations can be met.

Information gathered from the water quality monitoring stations may result in modification of the permit to protect existing uses on the tributary and the mainstem.

There shall be no discharge of floating solids or visible foam in other than trace amounts, nor shall the discharge cause formation of a visible sheen or visible hydrocarbon deposits on the bottom or shoreline of the receiving water.

All waters shall be discharged in a manner to prevent erosion, scouring, or damage to stream banks, stream beds, ditches, or other waters of the state at the point of discharge. In addition, there shall be no deposition of substances in quantities which could result in significant aesthetic degradation; or degradation of habitat for aquatic life, plant life or wildlife; or which could adversely affect public water supplies or those intended for agricultural or industrial use.

2. Discharges shall be monitored by the permittee as specified below:

a. Monitoring of the initial discharge

If the outfalls being authorized for discharge under this permit renewal have already been sampled and analyzed for initial monitoring constituents, the permittee is not required to re-sample and re-analyze the outfalls if results have been obtained for all the constituents listed below and reported to the WDEQ.

Within 60 days of commencement of discharge, a sample shall be collected from each outfall and analyzed for all the constituents specified below, at the required detection limits. Within 120 days of commencement of discharge, a summary report, including a copy of the laboratory analyses, on the produced water must be submitted to the Wyoming Department of

Environmental Quality and the U.S. EPA Region 8 at the addresses listed below. This summary report must include the results and detection limits for each of the constituents listed below, and a copy of the laboratory analyses reports. In addition, the report must include written notification of the established location of the discharge point (refer to Part I.B.11). This notification must include a confirmation that the location of the established discharge point(s) is within 1,510 feet of the location of the identified discharge point(s), is within the same drainage, and discharges to the same landowner's property as identified on the original application form. The legal description and location in decimal degrees of the established discharge point(s) must also be provided. After receiving the monitoring results for the initial discharge, the effluent limits and monitoring requirements established in this permit may be modified.

Parameter* (See notes following the table on chemical states)	Required Detection Limits and Required Units
Alkalinity, Total	1 mg/l as CaCO ₃
Aluminum, Total Recoverable	50 µg/l
Arsenic, Total	1 µg/l
Barium, Total	100 µg/l
Bicarbonate	10 mg/l
Cadmium, Dissolved	5 µg/l
Calcium, Dissolved	50 µg/l, report as me/l
Calcium, Dissolved	50 µg/l, report as mg/l
Chlorides	5 mg/l
Copper, Dissolved	10 µg/l
Dissolved Solids, Total	5 mg/l
Hardness, Total	10 mg/l as CaCO ₃
Iron, Dissolved	50 µg/l
Lead, Dissolved	2 µg/l
Magnesium, Dissolved	100 µg/l, report as me/l
Magnesium, Dissolved	100 µg/l, report as mg/l
Manganese, Dissolved	50 µg/l
Mercury, Dissolved	1 µg/l
pH	to 0.1 pH unit
Radium 226, Total	0.2 pCi/l
Radium 228, Total	0.2 pCi/l
Selenium, Total Recoverable	5 µg/l
Sodium Adsorption Ratio	Calculated as unadjusted ratio
Sodium, Dissolved	100 µg/l, report as me/l
Sodium, Dissolved	100 µg/l, report as mg/l
Specific Conductance	5 micromhos/cm
Sulfates	10 mg/l
Zinc, Dissolved	50 µg/l

TOTAL: Value is expressed in terms of total recoverable metal in the water column.

NOTE: Except for aquatic life values for metals and where otherwise indicated, the values given refer to the total recoverable (dissolved plus suspended) amount for each substance. For the aquatic life values for metals, the values refer to the dissolved amount.

DISSOLVED: Volume is based on the dissolved amount which is the amount that will pass through a 0.45 µm membrane filter prior to acidification to pH 1.5 - 2.0 with nitric acid.

Initial monitoring reports are to be sent to the following addresses:

Planning and Targeting Program, 8ENF-PT
 Office of Enforcement, Compliance, and Environmental Justice
 U.S. EPA Region 8
 999 18th St., Suite 300
 Denver, CO 80202-2466

and

Wyoming Department of Environmental Quality
 Water Quality Division
 Herschler Building, 4 West
 122 West 25th Street
 Cheyenne, WY 82002

b. Routine monitoring End of Pipe (001-011)

For the duration of the permit, at a minimum, samples for the constituents described below shall be collected at the indicated frequencies. The first routine monitoring for the time frame during which the monitoring of initial discharge occurs will, at a minimum, consist of flow measurements for the duration of the six-month monitoring time frame. Monitoring will be based on semi-annual time frames, from January through June, and from July through December.

<u>Parameter</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Bicarbonate (mg/l)	Monthly, April through September	Grab
Dissolved Calcium (mg/l)	Monthly, April through September	Grab
Dissolved Calcium (me/l)	Monthly, April through September	Grab
Chloride (mg/l)	Once Every Six Months	Grab
Dissolved Iron (µg/l)	Annually	Grab

<u>Parameter</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Dissolved Manganese ($\mu\text{g/l}$)	Annually	Grab
Dissolved Magnesium (mg/l)	Monthly, April through September	Grab
Dissolved Magnesium (me/l)	Monthly, April through September	Grab
pH (standard units)	Quarterly	Grab
Radium 226 (pCi/l)	Annually	Grab
Dissolved Sodium (mg/l)	Monthly, April through September	Grab
Dissolved Sodium (me/l)	Monthly, April through September	Grab
Sodium Adsorption Ratio (calculated as unadjusted ratio)	Monthly, April through September	Calculated
Specific Conductance (micromohs/cm)	Monthly, April through September	Grab
Sulfate (mg/l)	Once Every Six Months	Grab
Total Alkalinity (mg/l)	Quarterly	Grab
Total Arsenic ($\mu\text{g/l}$)	Annually	Grab
Total Barium ($\mu\text{g/l}$)	Annually	Grab
Total Flow – (MGD)	Monthly	Continuous
Temperature – degrees Celsius	Quarterly	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): At the outfall of the final treatment unit which is located out of the natural drainage and prior to admixture with diluent waters.

All requirements regarding end-of-pipe monitoring described in Part I.A.4.b apply to this additional constituent.

d. Water Quality Monitoring Stations (TRIB1, UPR, DPR)

For the duration of the permit, at a minimum, samples for the constituents described below shall be collected at the indicated frequencies. Monitoring will be based on monthly time frames, and reported semiannually.

<u>Parameter</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Dissolved Calcium (mg/l)	Monthly	Grab
Dissolved Calcium (me/l)	Monthly	Grab
Chloride (mg/l)	Monthly	Grab
Dissolved Magnesium (mg/l)	Monthly	Grab
Dissolved Magnesium (me/l)	Monthly	Grab
Dissolved Sodium (mg/l)	Monthly	Grab
Dissolved Sodium (me/l)	Monthly	Grab
Sodium Adsorption Ratio (calculated as unadjusted ratio)	Monthly	Calculated
Specific Conductance (micromohs/cm)	Monthly	Grab
Flow* (MGD)	Monthly	Instantaneous

*The permittee is not required to measure or monitor flow on the mainstem water quality monitoring stations (UPR and DPR). Flow is to be measured and monitored at the tributary monitoring stations only (TRIB1). See permit (Table 1, Part I.B.12) for a description of water quality monitoring station locations.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): designated water quality monitoring station located on OK Creek and in the main channel of the Powder River, upstream and downstream of the confluence with OK Creek. The designated water quality monitoring stations are located on the tributary and the mainstem as described in Part I.B.12 of the permit. Established water quality monitoring stations on the mainstem are to be located outside the mixing zone of the tributary with the mainstem. Effluent samples at the designated water quality monitoring stations must be collected on a monthly basis and are to be reported semiannually. If no effluent from this facility intercepts the established tributary monitoring station on OK Creek then "no discharge" is to be reported and samples need not be collected at the three water quality monitoring stations for that monthly sampling period.

B. MONITORING AND REPORTING

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and approval by, the permit issuing authority.

2. Reporting

Results of initial monitoring, including the date the discharge began, shall be summarized on a Monitoring Report Form for Monitoring of Initial Discharge and submitted to the state water pollution control agency at the address below postmarked no later than 90 days after the commencement of discharge.

Results of routine end of pipe, irrigation compliance point, and water quality station monitoring during the previous six (6) months shall be summarized and reported semiannually on a Discharge Monitoring Report Form (DMR). If the discharge is intermittent, the date the discharge began and ended must be included. The information submitted on the first semiannual DMR shall contain a summary of flow measurements and any additional monitoring conducted subsequent to the submittal of the initial monitoring report. If whole effluent toxicity testing (biomonitoring) is required, results must be reported on the most recent version of *EPA Region VIII's Guidance for Whole Effluent Reporting*. Monitoring reports must be submitted to the state water pollution control agency at the following address postmarked no later than the 15th day of the second month following the completed reporting period. The first report is due on February 15, 2006.

Legible copies of these, and all other reports required herein, shall be signed and certified in accordance with the Signatory Requirements contained in Part II.A.11.

Wyoming Department of Environmental Quality
Water Quality Division
Herschler Building, 4 West
122 West 25th Street
Cheyenne, WY 82002
Telephone: (307) 777-7781

If no discharge occurs during the reporting period, "no discharge" shall be reported. If discharge is intermittent during the reporting period, sampling shall be done while the facility is discharging.

3. Definitions

- a. The "monthly average" shall be determined by calculating the arithmetic mean (geometric mean in the case of fecal coliform) of all composite and/or grab samples collected during a calendar month.
- b. The "weekly average" shall be determined by calculating the arithmetic mean (geometric mean in the case of fecal coliform) of all composite and/or grab samples collected during any week.

- c. The "daily maximum" shall be determined by the analysis of a single grab or composite sample.
- d. "MGD", for monitoring requirements, is defined as million gallons per day.
- e. "Net" value, if noted under Effluent Characteristics, is calculated on the basis of the net increase of the individual parameter over the quantity of that same parameter present in the intake water measured prior to any contamination or use in the process of this facility. Any contaminants contained in any intake water obtained from underground wells shall not be adjusted for as described above and, therefore, shall be considered as process input to the final effluent. Limitations in which "net" is not noted are calculated on the basis of gross measurements of each parameter in the discharge, irrespective of the quantity of those parameters in the intake waters.
- f. A "composite" sample, for monitoring requirements, is defined as a minimum of four grab samples collected at equally spaced two hour intervals and proportioned according to flow.
- g. An "instantaneous" measurement for monitoring requirements is defined as a single reading, measurement, or observation.
- h. A "pollutant" is any substance or substances which, if allowed to enter surface waters of the state, causes or threatens to cause pollution as defined in the Wyoming Environmental Quality Act, Section 35-11-103.
- i. "Total Flow" is the total volume of water discharged, measured on a continuous basis and reported as a total volume for each month during a reporting period. The accuracy of flow measurement must comply with Part III.A.1.

4. **Test Procedures**

Test procedures for the analysis of pollutants, collection of samples, sample containers, sample preservation, and holding times, shall conform to regulations published pursuant to 40 CFR, Part 136, unless other test procedures have been specified in this permit.

5. **Recording of Results**

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date and time of sampling;
- b. The dates and times the analyses were performed;
- c. The person(s) who performed the analyses and collected the samples;
- d. The analytical techniques or methods used; and

- e. The results of all required analyses including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine the results.

6. **Additional Monitoring by Permittee**

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report Form. Such increased frequency shall also be indicated.

7. **Records Retention**

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application. This period may be extended by request of the administrator at any time. Data collected on site, copies of Discharge Monitoring Reports and a copy of this WYPDES permit must be maintained on site during the duration of activity at the permitted location.

8. **Penalties for Tampering**

The Act provides that any person who falsifies, tampers with or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years per violation, or both.

9. **Compliance Schedules**

Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any Compliance Schedule of this permit shall be submitted no later than 14 days following each schedule date.

10. **Facility Identification**

All facilities discharging produced water shall be clearly identified with an all-weather sign posted at each outfall and flow monitoring locations (points of compliance). This sign shall, as a minimum, convey the following information:

- a. The name of the company, corporation, person(s) who holds the discharge permit, and the WYPDES permit number;
- b. The contact name and phone number of the person responsible for the records associated with the permit;
- c. The name of the facility (lease, well number, etc.) and the outfall number as identified by the discharge permit.

11. **Identification and Establishment of Discharge Points**

According to 40 CFR 122.21(k)(1), the permittee shall identify the expected location of each discharge point on the appropriate WYPDES permit application form. The location of the discharge point must be identified to within an accuracy of 15 seconds. This equates to a distance of 1,510 feet.

In order for the permit not to be subjected to additional public notice, the location of the established discharge point must be within 1,510 feet of the location of the discharge point originally identified on the permit application. In addition, the discharge must be within the same drainage and must discharge to the same landowner's property as identified on the original application form. If the three previously stated requirements are not satisfied, modification of the discharge point location(s) constitutes a major modification of the permit as defined in Part I.B.12. The permittee shall provide written notification of the establishment of each discharge point in accordance with Part I.A.2.a above.

12. Location of Outfalls and Water Quality Monitoring Stations

As of the date of permit issuance, authorized points of discharge were as follows:

SEE TABLE 1 FOR A LIST OF OUTFALLS AND WATER QUALITY MONITORING STATION LOCATIONS

. Requests for modification of the above list will be processed as follows. If the requested modification satisfies the definition of a minor permit modification as defined in 40 CFR 122.63 modifications will not be required to be advertised in a public notice. A minor modification constitutes a correction of a typographical error, increase in monitoring and/or reporting, revision to an interim compliance schedule date, change in ownership, revision of a construction schedule for a new source discharger, deletion of permitted outfalls, and/or the incorporation of an approved local pretreatment program.

A request for a minor modification must be initiated by the permittee by completing the form titled Wyoming Pollutant Discharge Elimination System Permit Modification Application For Coal Bed Methane. Incomplete application forms will be returned to the applicant.

The outfalls listed in Table 1 (located at the end of Part I) may be moved from the established location without submittal of a permit modification application provided all of the following conditions are satisfied:

1. The new outfall location is within 2640 feet of the established outfall location.
2. The new outfall location is within the same drainage or immediate permitted receiving waterbody.
3. There is no change in the affected landowners.
4. Notification of the change in outfall location must be provided to the NPDES Permits Section on a form provided by the WQD Administrator within 10 days of the outfall location change. The form must be provided in duplicate and legible maps showing the previous and new outfall location must be attached to the form.

Moving an outfall location without satisfying the four above listed conditions will be considered a violation of this permit and subject to full enforcement authority of the WQD.

An outfall relocation as described above will not be allowed if the new outfall location is less than one mile from the confluence of a Class 2 waterbody and the dissolved iron limits established in the permit for the outfall are based upon Class 3 standards.

TABLE 1: OUTFALL AND WATER QUALITY MONITORING STATION LOCATION INFORMATION, WY0042056

Outfall #	Immediate Receiving Stream	Distance from outfall to mainstem (stream miles)	Quarter / Quarter	Section	Township	Range	Latitude	Longitude	Reservoir Name	Groundwater approval required before discharge?
001	Hydrologically Isolated	0.68	SWNW	35	54	77	44.614611	-106.098111	The Pit Stock Reservoir	NO
002	OK Draw - OK Creek	1.8	SESW	27	54	77	44.622222	-106.114444	CRP Reservoir	NO
003	OK Draw - OK Creek	2.0	NESW	27	54	77	44.624690	-106.115010	CRP Reservoir	NO
004	OK Draw - OK Creek	3.1	SENW	28	54	77	44.629444	-106.133889	O.K. Flat Stock Reservoir O.K. Flat #2 Stock Reservoir CRP Reservoir	NO
005	OK Draw - OK Creek	1.6	SENE	34	54	77	44.612917	-106.102367	CRP #2 Reservoir	NO
006	OK Draw - OK Creek	3.1	NWSW	28	54	77	44.623980	-106.138040	South Fork A Stock Reservoir South Fork Stock Reservoir	NO
007	OK Draw - OK Creek	2.7	SWNE	28	54	77	44.627361	-106.128111	O.K. FLAT #2 Stock Reservoir CRP Reservoir	NO
008	OK Draw - OK Creek	2.9	NESW	28	54	77	44.626810	-106.135050	O.K. Creek Stock Reservoir	NO
009	OK Draw - OK Creek	2.9	NESW	28	54	77	44.625520	-106.135790	South Fork Stock Reservoir	NO
010	OK Draw - OK Creek	3.3	NESE	29	54	77	44.625930	-106.142920	South Fork B Stock Reservoir South Fork Stock Reservoir	NO
011	OK Draw - OK Creek	2.4	NWSW	34	54	77	44.610450	-106.119460	CRP#1 Stock Reservoir/ Deavours Reservoir	NO
WATER QUALITY MONITORING STATION LOCATION INFORMATION										
DPR	--	--	SWNE	27	54	77	44.630031	-106.109400		--
TRIB1	OK Creek	--	SWNW	35	54	77	44.6148316	-106.099857		--
UPR	--	--	SENE	35	54	77	44.613190	-106.085090		--

C. **RESERVOIR / IMPOUNDMENT REQUIREMENTS**

1. **Groundwater Monitoring Beneath Impoundments**

Table 1, Part I.B.12 of the permit above identifies which outfalls (if any) are designed to discharge into impoundments that are subject to groundwater monitoring requirements established in the latest version of the Water Quality Division guideline "*Compliance Monitoring for Groundwater Protection Beneath Unlined Coalbed Methane Produced Water Impoundments.*" These specified outfalls are not authorized to discharge until a written groundwater compliance approval has been granted by the Groundwater Pollution Control Program of the Water Quality Division. A groundwater compliance approval will consist of either a final approved groundwater compliance monitoring plan, or written authorization for an exemption thereof. Once an impoundment has been granted a written groundwater compliance approval, the contributing outfall(s) to that reservoir may commence discharge.

Any discharge into an impoundment which has not been granted the required groundwater compliance approval will constitute a violation of this permit, and may result in enforcement action from the Water Quality Division to include a notice of violation, revocation of the discharge permit, or other appropriate enforcement action.

