14806

QUESTAR

Wexpro Company
PO Box 458
Rock Springs, WY 82902
Tel 307 352 7582 • Fax 307 351 7575

April 15, 2013

APR 2013
RECEIVED
AIR QUALITY
DIVISION

Department of Environmental Quality
Air Quality Division
Herschler Building, 2E
122 W. 25th Street
Cheyenne, WY 82002

RE: Dry Piney Central Facility
Application to Modify Permit AP-10941
NW Section 12, T27N, R114W
Sublette County, Wyoming

Ladies/Gentlemen:

Wexpro Company (Wexpro) is submitting an application to document equipment changes at the Dry Piney Central Facility, as well as to modify the historical baseline emissions to include an engine that was previously unaccounted for (listed in waiver AP-7420). This application is prepared under the Wyoming Air Quality Division's (WAQD) Oil and Gas Production Facilities Chapter 6, Section 2 Permitting Guidance, revised March 2010. As per the definition of "Modified Facility" in the 2010 Guidance, the Dry Piney Central Facility is not considered to have been modified. This site is therefore not subject to the control requirement thresholds listed in the March 2010 Guidance.

Waiver AP-7420 accounts for a 254 HP White Superior 8G-825 Engine Driven Generator, located at the Dry Piney Central Facility (aka Dry Piney Oil Operations). The waiver for this engine was issued on March 10, 2008. This source should have been included in the historical baseline emissions estimates for the Dry Piney Central facility as it was operational within the baseline estimation period. This engine has since been removed and is no longer operational. Wexpro seeks to gain NOx emissions credits for the removal of this engine, and therefore have included this engine within revised baseline calculations for the Dry Piney Central Facility. These revised baseline calculations are included in this submittal under Attachment "A".

The Dry Piney Central Facility is currently listed under permit AP-10941. There have been minor changes in equipment such as reductions in burner sizes and removal of a methanol storage tank. These changes are accounted for in this submittal on form AQD-OG7.

Other emissions sources (tanks, treater vent, fugitives, etc…) remain unchanged from the previous permit application. In order to appropriately demonstrate the total facility-wide emissions associated with the minor equipment changes, all unchanged sources are accounted for at their permitted emission levels within the emissions summary sheet included in this submittal.

To ensure offsets are not being double counted and credits are available for future permitting actions, the Division has requested that Wexpro develop a spreadsheet to track all permitting actions since April 1, 2008. This offset tracking spreadsheet has been updated with current emissions and is included with this application submittal under Attachment "B". The updated offset spreadsheet demonstrates that Wexpro's current VOC offset bank is estimated at -10.1 tons credit and the NOx offset bank totals -3.2 tons credit.

If you should have any questions please contact me at (307) 352-7582.

Sincerely,

Linda Sugano

Linda Sugano
Environmental Coordinator

Enclosure:
cc: Lesair Environmental

STATE OF WYOMING

Department of Environmental Quality - Air Quality Division

Oil & Gas Production Facilities C6 S2 Permit Application

Company Name: **Wexpro Company**

Facility Name: **Dry Piney Central Facility**

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DIVISION

To Be Completed by WDEQ-AQD

Reviewer _____

Copy to _____

Cynthia _____

D.E. _____

File: _____

Form AQD-OG0

Application March 2010

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DIVISION

STATE OF WYOMING

Department of Environmental Quality - Air Quality Division

Oil & Gas Production Facilities

Checklist for Complete Application

INDUSTRY		DEQ-AQD
X	Company Name/Contact Information	
X	Well/Facility Name and API #	
X	Legal Locations	
X	Existing Permit/Waiver #'s	
X	List of Equipment Onsite	
X	Plot Plan	
X	Process Description	
X	Current Production Rates	
X	Gas/Condensate Analyses	
X	All Pertinent Dates (date of first production, control installation date)	
X	Emission Models (Input/Output)	
X	Other Calculations (heaters, pneumatic equipment, truck loading, etc.)	
X	All Applicable Application Forms	
X	DEQ Application Cover Sheet	
X	Facility Location Specify: STATEWIDE CDA (JPAD)	
SCENARIO 1 SCENARIO 2 ~~NA~~	Dehydration Unit Presumptive BACT check appropriate box	SCENARIO 1 SCENARIO 2 NA

Form AQD-OG00

Completeness Checklist March 2010

APR 2013

STATE OF WYOMING
Department of Environmental Quality - Air Quality Division
Oil and Gas Production Facilities C6 S2 Permit Application
Application Cover Sheet

submit (1) one signed original copy AND (1) one electronic copy of the application OR (3) paper copies, one w/ original signature

Company Name: Wexpro Company

Facility Name: Dry Piney Central Facility

API Number:

For more than one well, list additional wells & associated API numbers on page 2 of this form.

OFFICIAL CONTACT PERSON

Name: Linda Sugano Title: Environmental Coordinator

Address: P.O. Box 458, Rock Springs, WY 82902

Telephone: (307) 352-7582 Fax: (307) 352-7575 E-mail: Linda.Sugano@questar.com

LOCATION

County: Sublette

Legal Description: 1/4 1/4 NW Section 12 T 27N R 114W

Easting: 553873 Northing: 4688584

FACILITY INFORMATION

Type of Facility: Single Well ____ PAD ____ Central Tank Battery X

Type of Application: New Construction ____ Modified Facility X

First Date of Production ____ Date of Modification 2013

Producing Field Name: Dry Piney

Producing Formation(s): Nugget, Bear and Frontier

Existing Air Quality Permit / Waiver Numbers: MD-10941, AP-7420

Pending Air Quality Permit Application Numbers: NA

I, Linda Sugano (Responsible Official) Environmental Coordinator (Title)

state that I have knowledge of the facts herein set forth and that the same are true and correct to the best of my knowledge and belief. I further certify that the emission rates listed on this certification reflect the anticipated emissions due to the operation of this facility. The facility will operate in compliance with all Wyoming Air Quality Standards and Regulations.

Signature: Linda Sugano Date: 4-15-13

Signature Required

FORM AQD-OG1

Application Coversheet March 2010

STATE OF WYOMING
Department of Environmental Quality - Air Quality Division
Oil and Gas Production Facilities C6 S2 Permit Application

Equipment List

Company Name: Wexpro Company

Facility Name: Dry Piney Central Facility

List all production equipment at the site including all pressurized vessels with the potential for flash emissions, all hydrocarbon liquids and produced water storage tanks, all dehydration units, all pneumatic pumps, all natural gas-fired burners and heaters and all emission control equipment and devices. Pressurized vessels with the potential for flash emissions are all vessels that vent vapors to the atmosphere during times other than upset or emergency conditions (water knockouts, 2-phase and 3-phase separators, heater treaters, gun barrels, scrubber pots, etc). Provide design ratings for dehys (MMCFD), process heaters, burners and pilots (MMBtu/hr, SCFH). Provide size of production & water storage tanks (BPD). For dehydration units indicate if the unit includes a glycol flash separator and/or reboiler still vent condenser. For emission control combustors/flares indicate design rating (MMBtu/hr, SCFD) and combustor/flare height (ft). Provide pneumatic pump motive gas useage (SCFH).

If more space is required, continue on page 2 of this sheet.

PROVIDE INSTALLATION DATES OF ALL EMISSION CONTROL EQUIPMENT & MONITORING DEVICES/SYSTEMS !!!

(1) 1.8MMBtu/hr Heater Treater(s)

(2) 0.375MMBtu/hr Heater Treater(s)

(4) 400bbl Production Tank(s)

(2) 400bbl Produced Water Drain Tank(s)

(1) 3000bbl Produced Water Tank(s)

(1) 750bbl Produced Water Skim Tank(s)

(1) 130bbl Glycol Tank(s)

(5) 0.5MMBtu/hr Tank Heater(s)

(1) 0.25MMBtu/hr Tank Heater(s)

(1) Pneumatic Water Circulation Pump(s)

(2) Pyrohelix Smokeless Combustion Devices w/ continuous pilot monitoring systems

Example:

1 2-phase high pressure separator (unheated)

1 3-phase low pressure separator w/ 0.5 MMBtu/hr heater

2 0.5 MMBtu/hr line heaters

1 5 MMCFD TEG dehydration unit w/ 0.5 MMBtu/hr reboiler heater, glycol flash separator(0.5 MMBtu/hr heater) and overheads condenser

2 400-bbl condensate tanks

1 400-bbl produced water tank

1 30-ft enclosed combustor (3.0 MMBtu/hr, 5 MCFD) for flashing & reboiler vent/glycol flash separator emissions control installed 1/1/2007

STATE OF WYOMING

Department of Environmental Quality - Air Quality Division
Oil and Gas Production Facilities C6 S2 Permit Application

EMISSION SUMMARY

Company Name Wexpro Company

Facility Name Dry Piney Central Facility

This form must be completed for each emission source at the facility. A list of the emission sources which must be considered is found in Appendix B of the C6 S2 O&G Production Facilities Permitting Guidance.

UNCONTROLLED EMISSIONS (Tons Per Year)

These are the total uncontrolled, potential emissions from each source.

EMISSION SOURCE (i.e., tank, natural gas-fired heater, reboiler still vent, glycol flash separator, pneumatic pump, separator gas vent, water knockout vent, etc.)	VOCs	total HAPs	NO_X	CO	SO_2	H_2S
(4) 400 bbl Condensate/Oil Tanks	9.30	0.49	0.00	0.00	0.00	0.00
Heater Treater Flash Gas	392.60	63.19	0.00	0.00	0.00	0.00
(1) 1.8 MMBtu/hr Heater Treater(s)	0.00	0.00	0.29	0.24	0.00	0.00
(2) 0.375 MMBtu/hr Heater Treater(s)	0.00	0.00	0.12	0.10	0.00	0.00
(5) 0.5 MMBtu/hr Tank Heater(s)	0.00	0.00	0.59	0.50	0.00	0.00
(1) 0.25 MMBtu/hr Tank Heater(s)	0.00	0.00	0.06	0.05	0.00	0.00
Fugitives	4.70	0.01	0.00	0.00	0.00	0.00
Pneumatic Pumps	0.30	0.00	0.00	0.00	0.00	0.00
(2) 400 bbl Produced Water Drain Tank(s)	0.00	0.00	0.00	0.00	0.00	0.00
(1) 3000 bbl Produced Water Tank(s)	0.00	0.00	0.00	0.00	0.00	0.00
(1) 750 bbl Produced Water Skim Tank(s)	0.00	0.00	0.00	0.00	0.00	0.00
(1) 130 bbl Glycol Tank(s)	0.00	0.00	0.00	0.00	0.00	0.00

CONTROLLED EMISSIONS (Tons Per Year)

These are the total emissions from each source. Include controlled emissions from each controlled source and uncontrolled emissions from each source which does not require control, such as process equipment burners.

EMISSION SOURCE	VOCs	total HAPs	NO_X	CO	SO_2	H_2S
(4) 400 bbl Condensate/Oil Tanks	9.30	0.49	0.00	0.00	0.00	0.00
Heater Treater Flash Gas	7.90	1.00	1.50	0.40	0.00	0.00
(1) 1.8 MMBtu/hr Heater Treater(s)	0.00	0.00	0.29	0.24	0.00	0.00
(2) 0.375 MMBtu/hr Heater Treater(s)	0.00	0.00	0.12	0.10	0.00	0.00
(5) 0.5 MMBtu/hr Tank Heater(s)	0.00	0.00	0.59	0.50	0.00	0.00
(1) 0.25 MMBtu/hr Tank Heater(s)	0.00	0.00	0.06	0.05	0.00	0.00
Fugitives	4.70	0.01	0.00	0.00	0.00	0.00
Pneumatic Pumps	0.30	0.00	0.00	0.00	0.00	0.00
(2) 400 bbl Produced Water Drain Tank(s)	0.00	0.00	0.00	0.00	0.00	0.00
(1) 3000 bbl Produced Water Tank(s)	0.00	0.00	0.00	0.00	0.00	0.00
(1) 750 bbl Produced Water Skim Tank(s)	0.00	0.00	0.00	0.00	0.00	0.00
(1) 130 bbl Glycol Tank(s)	0.00	0.00	0.00	0.00	0.00	0.00
(2) VOC Combustor(s)	0.00	0.00	0.00	0.00	0.00	0.00

HAZARDOUS AIR POLLUTANT SUMMARY (Tons Per Year)

Complete this section for each emissions source if TOTAL HAPs from that source are 9 TPY or greater.

SOURCE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Other

STATE OF WYOMING

Department of Environmental Quality - Air Quality Division
Oil and Gas Production Facilities C6 S2 Permit Application
NOTICE of INSTALLATION

Company Name Wexpro Company

Facility Name Dry Piney Central Facility

Appropriate use of this form is described on Pages 34 - 36 of the C6 S2 O&G Production Facilities Permitting Guidance.

Submit one (1) signed original copy and one (1) electronic copy of the NOI
OR
three (3) paper copies of the Notice of Installation - one (1) with an original signature.

Contact

Name: Linda Sugano Title: Environmental Coordinator
Address: P.O. Box 458, Rock Springs, WY 82902
Telephone: (307) 352-7582 Fax: (307) 352-7575 E-Mail: Linda.Sugano@questar.com

Location

County: Sublette
¼ ¼ Section: NW Section: 12 Township: 27N Range: 114W
UTM Zone 12 Easting: 553873 Northing: 4688584

Date of Installation 2013

Facility Information

API number, if applicable: NA
Well field name: Dry Piney
Producing formation, if applicable: NA

Is this NOI being filed for new equipment at a new location? YES ___ NO X

Is this NOI being filed for new or replacement equipment at an existing location? YES X NO ___

If YES, list existing Air Quality Permit or Waiver numbers. AP-10941; AP-7420

List any pending Air Quality Permit application numbers. NA

Below, list the equipment to be installed under this NOI.

EXAMPLES	
(1) 0.5 MMBut/hr line heater	(1) 25-Hp AJAX pumping unit engine, 2 TPY NO_X emissions
replace 400-bbl condensate tank with like kind	wellhead only @ new sour well facility
(1) 400-bbl cond. tank, vent line routed to existing combustor	(1) unheated 2-phase separator, dumps to collection system
(2) 0.375 MMBtu/hr Heater Treater(s)	(2) 1.8 MMBtu/hr Heater Treater(s) *removed
	(1) 254 HP White Superior 8G-825 Genset (AP-7420) *removed
	(1) 150 bbl Methanol Tank *removed (Owned by QEP)
	(1) Elastec M100A Smart Ash Incinerator *removed

Attach any information demonstrating equipment installed under this NOI complies with the conditions described on Pages 34 - 36 of the C6 S2 O&G Production Facilities Permitting Guidance. For example, provide manufacturer's engine emission factors indicating emissions from a new pumping unit engine will be less than 5 TPY NO_X.

I, Linda Sugano (Responsible Official), Environmental Coordinator (Title)

state that I have knkowledge of the facts herein set forth and that the same are true and correct to the best of my knowledge and belief. I further certify that the emission rates listed on this certification reflect the anticipated emissions due to the operation of this facility. The facility will operate in compliance with all Wyoming Air Quality Regulations and Standards.

Signature: Linda Sugano *Signature Required* Date: 4-15-13

Form AQD-OG7

Company Name: **Wexpro Company**
Field Name: **Dry Piney**
Facility Name: **Dry Piney Central Facility**

Wyoming Air Quality Application Emission Summary Sheet

Controlled Production Equipment Emissions

			NOx		CO		SO2		Particulates		VOC		Total HAPs	
Ref No.	Equipment	Note	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
001	(4) 400 bbl Condensate/Oil Tanks	a	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.12	9.30	0.11	0.49
003	Heater Treater Flash Gas	b	0.34	1.50	0.09	0.40	0.00	0.00	0.00	0.00	1.80	7.90	0.23	1.00
004	(1) 1.8 MMBtu/hr Heater Treater(s)	c	0.20	0.29	0.16	0.24	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00
005	(2) 0.375 MMBtu/hr Heater Treater(s)	c	0.08	0.12	0.07	0.10	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00
006	(5) 0.5 MMBtu/hr Tank Heater(s)	c	0.27	0.59	0.23	0.50	0.00	0.00	0.02	0.05	0.00	0.00	0.00	0.00
007	(1) 0.25 MMBtu/hr Tank Heater(s)	c	0.03	0.06	0.02	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
008	Fugitives	d	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.07	4.70	0.00	0.01
009	Pneumatic Pumps	e	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.30	0.00	0.00
010	(2) 400 bbl Produced Water Drain Tank(s)	f	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
011	(1) 3000 bbl Produced Water Tank(s)	f	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
012	(1) 750 bbl Produced Water Skim Tank(s)	f	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
013	(1) 130 bbl Glycol Tank(s)	g	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
014	(2) VOC Combustor(s)	h	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total		**0.92**	**2.56**	**0.57**	**1.29**	**0.00**	**0.01**	**0.04**	**0.08**	**5.07**	**22.20**	**0.34**	**1.50**

NOTES: a - Condensate tank flashing emissions are the emissions associated with MD-10941
b - Heater treater vent emissions are the emissions associated with MD-10941.
c - Burner emissions based on EPA AP-42 emission factors from Section 1.4, Tables 1.4-1 and 1.4-2 for uncontrolled natural gas burners; fuel heating value is the same as what was used for calculations in MD-10941 (1130 Btu/scf). VOC is not being accounted for as it was not accounted for in the facility emissions of MD-10941.
d - Fugitive emissions are the emissions associated with MD-10941.
e - Pneumatic VOC/HAP emissions are the emissions associated with MD-10941.
f - There is currently no standard emissions estimating method for produced water tanks, the potential for VOC/HAP emissions from this source should be insignificant.
g - There are no emissions associated with the glycol storage tank.
h - MD-10941 does not list any emissions for the combustors within the emissions summary, therefore these emissions are not accounted for in this submittal since no changes in the VOC combustors have occurred.

Company Name: **Wexpro Company**
Field Name: **Dry Piney**
Facility Name: **Dry Piney Central Facility**

Wyoming Air Quality Application Emission Summary Sheet

Uncontrolled Production Equipment Emissions

			NOx		CO		SO2		Particulates		VOC		Total HAPs	
Ref No.	Equipment	Note	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
001	(4) 400 bbl Condensate/Oil Tanks	a	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.12	9.30	0.11	0.49
003	Heater Treater Flash Gas	b	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	89.63	392.60	14.43	63.19
004	(1) 1.8 MMBtu/hr Heater Treater(s)	c	0.20	0.29	0.16	0.24	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00
005	(2) 0.375 MMBtu/hr Heater Treater(s)	c	0.08	0.12	0.07	0.10	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00
006	(5) 0.5 MMBtu/hr Tank Heater(s)	c	0.27	0.59	0.23	0.50	0.00	0.00	0.02	0.05	0.00	0.00	0.00	0.00
007	(1) 0.25 MMBtu/hr Tank Heater(s)	c	0.03	0.06	0.02	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
008	Fugitives	d	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.07	4.70	0.00	0.01
009	Pneumatic Pumps	e	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.30	0.00	0.00
010	(2) 400 bbl Produced Water Drain Tank(s)	f	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
011	(1) 3000 bbl Produced Water Tank(s)	f	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
012	(1) 750 bbl Produced Water Skim Tank(s)	f	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
013	(1) 130 bbl Glycol Tank(s)	g	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total		**0.58**	**1.06**	**0.48**	**0.89**	**0.00**	**0.01**	**0.04**	**0.08**	**92.90**	**406.90**	**14.54**	**63.69**

NOTES: a - Condensate tank flashing emissions are the emissions associated with MD-10941
b - Heater treater vent emissions are the emissions associated with MD-10941.
c - Burner emissions based on EPA AP-42 emission factors from Section 1.4, Tables 1.4-1 and 1.4-2 for uncontrolled natural gas burners; fuel heating value is the same as what was used for calculations in MD-10941 (1130 Btu/scf). VOC is not being accounted for as it was not accounted for in the facility emissions of MD-10941.
d - Fugitive emissions are the emissions associated with MD-10941.
e - Pneumatic VOC/HAP emissions are the emissions associated with MD-10941.
f - There is currently no standard emissions estimating method for produced water tanks, the potential for VOC/HAP emissions from this source should be insignificant.
g - There are no emissions associated with the glycol storage tank.

Company Name: Wexpro Company
Field Name: Dry Piney
Facility Name: Dry Piney Central Facility

Emission Calculation for External Combustion Sources

AP-42 Calculation Method

(For Estimating Emissions, Using Emission Factors from EPA AP-42, Table 1.4-1 and Table 1.4-2)

Burner Data

Reference No.	Quantity	Burner Rating (MMBtu/Hr)	Equipment	Annual Op Time (hours)	Fuel Type	Fuel Htg Value (Btu/scf)
004	1	1.800	Heater Treater(s)	2920	Field	1130
005	2	0.375	Heater Treater(s)	2920	Field	1130
006	5	0.500	Tank Heater(s)	4380	Field	1130
007	1	0.250	Tank Heater(s)	4380	Field	1130

Emission Factors

Reference No.	Burner Rating (MMBtu/Hr)	Emission Factors				
		NOx (Lb/MMFt^3)	CO (Lb/MMFt^3)	SO_2 (Lb/MMFt^3)	PM (Lb/MMFt^3)	VOC (Lb/MMFt^3)
004	1.800	100.0	84.0	0.6	7.6	5.5
005	0.375	100.0	84.0	0.6	7.6	5.5
006	0.500	100.0	84.0	0.6	7.6	5.5
007	0.250	100.0	84.0	0.6	7.6	5.5
EF Source		AP-42	AP-42	AP-42	AP-42	AP-42

Source Emissions

Reference No.	Source Emissions									
	NOx		CO		SO_2		PM		VOC	
	(Lb/Hr)	(TPY)	(Lb/Hr)	(TPY)	(Lb/Hr)	(TPY)	(Lb/Hr)	(TPY)	(Lb/Hr)	(TPY)
004	0.20	0.29	0.16	0.24	0.00	0.00	0.01	0.02	0.01	0.02
005	0.08	0.12	0.07	0.10	0.00	0.00	0.01	0.01	0.00	0.01
006	0.27	0.59	0.23	0.50	0.00	0.00	0.02	0.05	0.01	0.03
007	0.03	0.06	0.02	0.05	0.00	0.00	0.00	0.00	0.00	0.00

Company Name: **Wexpro Company**
Facility Name: **Dry Piney Central Facility**

Attachment A

Representative Baseline Emissions (from MD-10941) with Revisions

Baseline emissions were calculated by Heather Bleile (WAQD) and were included in MD-10941. These emissions have now been revised to include a 254 HP White Superior Genset that historically existed.

Prepared for:
Wexpro Company

Prepared by:
Lesair Environmental, Inc.
www.Lesair.com

Company Name: **Wexpro Company**
Field Name: **Dry Piney Field**
Facility Name: **Dry Piney Central Facility**

Wyoming Air Quality Application Emission Summary Sheet

Revised Historical Baseline Emissions - AP-10941

			NOx		CO		SO2		Particulates		VOC		Total HAPs	
Ref No.	Equipment	Note	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
001	(4) 400 bbl Condensate/Oil Tanks	a	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.12	6.40	0.11	0.49
003	Heater Treater Flash Gas	a	0.43	1.90	0.00	0.00	0.00	0.00	0.00	0.00	2.24	9.80	0.00	0.00
007	Burners (Heater Treaters and Tank Heaters)	a	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
008	Fugitives	a	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.07	4.70	0.00	0.01
009	Pneumatic Pumps	a	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.30	0.00	0.00
010	(1) 3000 bbl Produced Water Tank(s)	a	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
011	(1) 750 bbl Produced Water Skim Tank(s)	a	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
012	(1) 130 bbl Glycol Tank(s)	a	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
013	(1) 254 HP White Superior 8G-825 Genset	b	0.56	2.5	0.56	2.45	0.00	0.01	0.20	0.87	0.11	0.5	0.01	0.49
	Total		**0.99**	**5.75**	**0.56**	**2.45**	**0.00**	**0.01**	**0.20**	**0.87**	**5.62**	**21.69**	**0.12**	**0.99**

NOTES: a - Baseline emissions were estimated by Heather Bleile (WAQD) within a file titled "Offset Emission Calculations" for the Dry Piney Central Facility, dated October 25, 2010. These are the historical baseline emissions associated with AP-10941.

b- The White Superior 8G-825 Genset is permitted under Waiver AP-7420 for the Dry Piney Central Facility, and was operational during the 2008 baseline estimation period. This engine should be included in the historical baseline estimates for this facility. The emissions shown here represent what was permitted in AP-7420.

Company Name: **Wexpro Company**
Facility Name: **Dry Piney Central Facility**

Emission Calculation for Natural Gas Fueled Engines

Emission Factor Calculation Method

(For Estimating Emissions, Using Factors supplied by the manufacturer or if no other data is available using AP-42 factors from Section 1.4)

Engine Data

Site Rating (HP)	Manufacturer	Model	Annual Op Time (hours)	Fuel Type	Fuel Htg Value (Btu/scf)	Emission Factor Source	BSFC Btu/hp-hr	Fuel Use MMSCF/yr
254	White Superior	8G-825	8760	Natural Gas	1070	Manufacturer	10,150	21.107

NOTE: Engine maximum rated horse power at 254 HP. Engine has been derated to 254 HP.

Emission Factors (Controlled)

Site Rating (HP)	NOx (gm/hp-hr)	CO (gm/hp-hr)	SO_2 (lb/MMBTU)	TSP & PM10 (lb/MMBTU)	PM2.5 (lb/MMBTU)	VOC (gm/hp-hr)	HCHO (gm/hp-hr)	Acetaldehyde (lb/MMBTU)	Acrolien (lb/MMBTU)	Benzene (lb/MMBTU)	Toluene (lb/MMBTU)	Ethyl. (lb/MMBTU)	Xylene (lb/MMBTU)	Methanol (lb/MMBTU)
254	1.00	1.00	5.88E-04	3.84E-02	3.84E-02	0.20	2.00E-01	7.76E-03	7.78E-03	1.94E-03	9.63E-04	1.08E-04	2.68E-04	2.48E-03
EF Source	Manuf.	Manuf.	AP-42	AP-42	AP-42	Manuf.	HapCalc 3.01	AP-42	AP-42	AP-42	AP-42	AP-42	AP-42	AP-42

Emissions (Lb/hr) = Emission Factor (gm/hp-hr) * Site Rating (hp) * 1 Lb/454 gm

Emissions (Lb/hr) = Emission Factor (gm/kW-hr) * 0.746 kW/ Hp * Site Rating (hp) * 1 lb/454 g

Emissions (Lb/hr) = Emission Factor (lb/MMBTU) * Fuel Htg Value (BTU/scf) * Fuel Use (MMSCF/yr) / Annual Op Hours (hrs/yr)

Emissions (TPY) = Emissions (Lb/hr) * Annual Operating Time (hr/yr) * 1 ton/2,000 lb

Calculated Source Emissions

NOx		CO		SO2		TSP & PM10		PM2.5		VOC	
(lb/hr)	(TPY)	(lb/hr)	(TPY)	(lb/hr)	(TPY)	(lb/hr)	(TPY)	(lb/hr)	(TPY)	(lb/hr)	(TPY)
0.56	2.5	0.56	2.5	0.00	0.01	0.10	0.43	0.10	0.43	0.11	0.5

HCHO		Acetaldehyde		Acrolien		Benzene		Toluene		Ethylbenzene		Xylene		Methanol	
(lb/hr)	(lb/yr)	(lb/hr)	(lb/yr)	(lb/hr)	(lb/yr)	(lb/hr)	(lb/yr)	(lb/hr)	(lb/yr)	(lb/hr)	(lb/yr)	(lb/hr)	(lb/yr)	(lb/hr)	(lb/yr)
0.11	981.08	0.02	175.25	0.02	175.70	0.01	43.81	0.00	21.75	0.00	2.44	0.00	6.05	0.01	56.01

Company Name: **Wexpro Company**

Facility Name: **Dry Piney Central Facility**

Attachment B

Emission Comparison and Offset Tracking Spreadsheet

Prepared for:
Wexpro Company

Prepared by:
Lesair Environmental, Inc.
www.Lesair.com

Company Name: **Wexpro Company**
Field Name: **Dry Piney Field**
Facility Name: **Dry Piney Central Facility**

Emissions Comparison (TPY)

Current Actual Emissions:	**Dry Piney Central Facility**	VOC	22.2		NOx	2.6
Historical Actual Emissions *:	**Dry Piney Central Facility**	VOC	21.7		NOx	5.8
	Historical vs. Actual Difference	VOC	0.5		NOx	-3.2
	Offset (1.5:1 for VOC, 1.1:1 for Nox)	**VOC**	**0.8**	**Offset Required**	**NOx**	**3.2** **Credit**

Note: * Historical emissions are the revised 2008 baseline emissions, which now account for a Genset engine that was in use at this facility during the baseline estimation period. This engine has since been removed from location and is no longer operational.

SUBLETTE COUNTY PERMITTED EMISSIONS April 1, 2008 - PRESENT

company	field	facility	date of permit application	date of receipt	permit/waiver / AP #	Equipment Design / Current Actual Emissions (TPY)		Baseline Emissions (TPY)		increase/decrease from baseline emissions (TPY)		VOC Offset Bank	NOx Offset Bank	Reason for Change
						VOC	NO_X	VOC	NO_X	VOC	NO_X			
Wexpro	Dry Piney	Dry Piney 35	10/22/2010			19.8	0.7	30.4	0.7	-10.6	0	-10.6	0.0	Swapped Kimray 4015 for crippled 2015 pump, accounted for additional HT pump
Wexpro	Dry Piney	Dry Piney Central Facility	4/3/2012			22.2	2.6	21.7	5.8	0.5	-3.2	0.5	-3.2	Equipment changes, removal of engine, revise baseline calcs to include engine
		Wexpro TOTAL				42	3.3	52.1	6.5	-10.1	-3.2	-10.1	-3.2	

Notes: