



October 23, 2008

Certified Mail Return Receipt Requested # 7007 1490 0001 8186 6448

Mr. and Mrs. Tracy and Amy Dahl  
PO Box 160  
Weston, CO 81091

RE: Complaint 200194010  
Exploration and Production Waste Disposal Practices Wood 2-43R

Dear Amy and Tracy:

In response to the complaint you submitted on August 19, 2008, the Colorado Oil and Gas Conservation Commission (COGCC) conducted field inspections of the Wood 2-43V and Wood 2-43R and the pad and lease road accessing the pad. You left a message for me that you had observed contract water trucks releasing water into two pits on the Wood pad.

### **FIELD INSPECTION**

I visited the site on August 19, 2008 to inspect the Wood 2-43V well, pit and pad as well as areas along the lease road. I also inspected the permitted location of the Wood 2-43R including the pit constructed to be utilized as a reserve pit if and when that well is drilled. Field inspections 200196178 (2-43V) and 200196179 (2-43R) document the inspections I conducted on August 19, 2008. Copies of those inspection notices are included as Attachments 1 and 2.

I did observe that the permitted produced water pit (Wood 2-43V), as well as the excavation to be used as a reserve pit if and when the Wood 2-43R is drilled, contained turbid water. A photograph of the excavation with turbid water taken on August 19, 2008 is included as Attachment 3. On August 19, 2008 I sent a message to Pioneer Natural Resources to make them aware that the excavation appeared to have been used as an unpermitted means of disposal of exploration and production wastes and that the practice must stop. I visited the site again on August 21, 2008. Water had been removed from the excavation at the Wood 2-43R as seen in Attachment 4 which is a photograph taken on August 21, 2008.

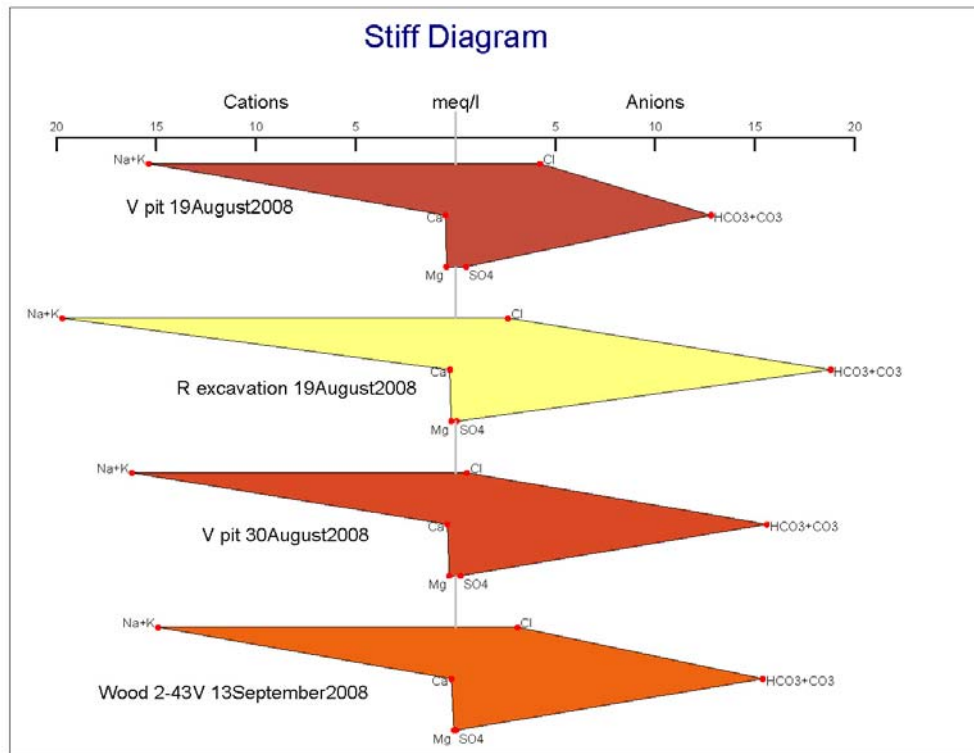
I received a message from you on August 30, 2008 that you had observed water trucks dumping produced water into the pit at the Wood 2-43V. I visited the site on August 30, 2008 to re-inspect the Wood 2-43V well, pit and pad as well as areas along the lease road. I also re-inspected the permitted location of the Wood 2-43R including the pit constructed to be utilized as a reserve pit if and when that well is drilled. Field inspections 200196180 (2-43V) and 200196181 (2-43R) document the inspections I conducted on August 30, 2008. Copies of those inspection notices are included as Attachments 5 and 6.

On August 19, 2008, I collected water samples from the pit and the excavation/pit for general inorganic water quality analyses. On August 20, 2008, I collected a water sample from the Wood 2-43V pit. No pump was installed or active at the Wood 2-43V on any of the three days I visited the site in August, 2008. The

results of those analyses are included as Attachment 7. Each sample has water that is of sodium-bicarbonate character which is typical of coal bed methane (CBM) produced water from the Raton Basin.

One means of examining major ion composition of water samples for similarities and/or differences is to plot them on a Stiff diagram. Sodium (Na), potassium (K), calcium (Ca) and magnesium (Mg) are positively charged and are the major cations in most waters. Chloride (Cl), bicarbonate + carbonate ( $\text{HCO}_3 + \text{CO}_3$ ) and sulfate ( $\text{SO}_4$ ) are negatively charged and are the major anions present in most waters.

Figure 1 is a Stiff diagram comparing the chemistry of water produced from the Wood 2-43V coal bed methane well (sampled at the time of the spill on September 13, 2008) to the chemistry of water present in the pit (Wood 2-43V) and the excavation (Wood 2-43R) Wood 2-43V. The dominant ions in the CBM produced water from the Wood 2-43V produced water are sodium and bicarbonate with lesser chloride.



**Figure 1 - Wood 2-43V Produced Water and Water from Pit and Excavation**

The staff of the COGCC issued one Notice of Alleged Violation (NOAV) to Pioneer Natural Resources for the Wood 2-43V (200197338) and one Notice of Alleged Violation for the Wood 2-43R (200197341) with respect to issues brought forward in your complaint of August 19, 2008 matters on October 23, 2008. Copies of those documents are enclosed (Attachment 8 and Attachment 9). This complaint will be closed with the issuance of these NOAV.

If you have any questions or would like to discuss these matters further, please contact me at 719-846-3091 or by email at [peter.gintautas@state.co.us](mailto:peter.gintautas@state.co.us) . Should you be unsatisfied with COGCC staff's handling and resolution of your complaint Rule 522.b. (4) allows you as the complainant to file with the Commission an application for an Order Finding Violation.


Sincerely,  
Colorado Oil and Gas Conservation Commission

Peter Gintautas  
Environmental Protection Specialist

Attachments:     Attachment 1 -     Field Inspection Notice 200196178 (Wood 2-43V) August 19, 2008  
                         Attachment 2 -     Field Inspection Notice 200196179 (Wood 2-43R) August 19, 2008  
                         Attachment 3 -     Photograph of Wood 2-43R Pit and Pad (19August2008)  
                         Attachment 4 -     Photograph of Wood 2-43R Pit (21August2008)  
                         Attachment 5 -     Field Inspection Notice 200196180 (Wood 2-43V) August 30, 2008  
                         Attachment 6 -     Field Inspection Notice 200196181 (Wood 2-43R) August 30, 2008  
                         Attachment 7 -     Analytical Data  
                         Attachment 8 -     Notice of Alleged Violation 200197338 (Wood 2-43V)  
                         Attachment 9 -     Notice of Alleged Violation 200197341 (Wood 2-43R)

cc:                     David Neslin, Acting COGCC Director w/o attachments  
                         Debbie Baldwin, COGCC Environmental Protection Manager w/o attachments  
                         Margaret Ash, COGCC Environmental Protection Supervisor w/o attachments  
                         Jerry Jacob, Pioneer Natural Resources, w/o attachments

# COGIS - Field Inspection Report

			
API Number:	05-071-09008-00	Well Name:	WOOD #2-43V
Well Location:	NESE 2 33S 68W	Lat:	Long:
Operator #:	10084	Operator Name:	PIONEER NATURAL RESOURCES USA INC
Inspection Date:	8/19/2008	Inspector:	PETER GINTAUTAS

Inspection was: **Unsatisfactory**

Insp. Type: <b>ES</b>	Insp. Stat: <b>PR</b>	Plugged:      Pass/Fail:
Violation: <b>Y</b>		NOAV Sent: <b>Y</b>
UIC Violation Type:		Brhd. Pressure:
Inj. Pressure:		T-C Ann. Pressure:
Date Corrective Action Due: <b>10/31/2008</b>		Date Remedied:

## Pit Inspection

Pit Type: **PW**      Oil on Pit: **N**      Freeboard:


Number of Pits: **1**      Number covered or lined: **0**      Number uncovered or unlined: **0**

Comments: **PIT IN USE BUT NO PUMP WORKING AT SITE, 3.5 FEET FREEBOARD**

## Field Inspection Comments and Observations

Insp. Comment	Inspection/Violation Comments
ACTION	REMOVE UNUSED EQUIPMENT FROM SITE INCLUDING PETROGULF SIGNS
FENCECOMMENT	PIT FENCED
GENHOUSE	UNUSED EQUIPMENT ON SITE, PETROGULF SIGN HAS INCORRECT EMERGENCY CONTACT SINCE WELL CHANGED OWNERSHIP.
TANKBAT	SHED (VS, TFA) PC PUMP ON GORUND NOT IN USE
WELLSIGN	PIONEER AND PETROGULF SIGNS AT PAD

# COGIS - Field Inspection Report

			
API Number:	05-071-09009-00	Well Name:	WOOD #2-43 R
Well Location:	NESE 2 33S 68W	Lat:	Long:
Operator #:	10084	Operator Name:	PIONEER NATURAL RESOURCES USA INC
Inspection Date:	8/19/2008	Inspector:	PETER GINTAUTAS

Inspection was: **Unsatisfactory**

Insp. Type: <b>ES</b>	Insp. Stat: <b>ND</b>	Plugged:      Pass/Fail:
Violation: <b>Y</b>		NOAV Sent: <b>Y</b>
UIC Violation Type:		Brhd. Pressure:
Inj. Pressure:		T-C Ann. Pressure:
Date Corrective Action Due: <b>10/31/2008</b>		Date Remedied:

## Pit Inspection

Pit Type: **PW**      Oil on Pit: **N**      Freeboard:


Number of Pits: **1**    Number covered or lined: **0**    Number uncovered or unlined: **0**

Comments: **RESERVE PIT CONSTURCTED PRIOR TO DRILLING (WELL NOT DRILLED ON DAY OF INSPECTION) PIT HAS BEEN RECEIVING PRODUCED WATER**

## Field Inspection Comments and Observations

Insp. Comment	Inspection/Violation Comments
ACTION	DO NOT UTILIZE EXCAVATIONS FOR PRODUCED WATER DISPOSAL WHEN NO WELL EXISTS AND NO PIT PERMIT EXISTS AUTHORIZING PRODUCED WATER DISPOSAL. REMOVE PETROGULF SIGN AS IT PROVIDES INCORRECT EMERGENCY CONTACT INFORMATION AND INCORRECT WELL OWNERSHIP INFORMATION.
FENCECOMMENT	RESERVE PIT FENCED
SPILCOM	RELEASE OF PRODUCED WATER AT SITE OF FUTURE RESERVE PIT.
WELLSIGN	PIONNER AND PETROGULF SIGNS AT WELL SITE

## COGIS - Field Inspection Report

			
API Number:	05-071-09008-00	Well Name:	WOOD #2-43V
Well Location:	NESE 2 33S 68W	Lat:	Long:
Operator #:	10084	Operator Name:	PIONEER NATURAL RESOURCES USA INC
Inspection Date:	8/30/2008	Inspector:	PETER GINTAUTAS

Inspection was: **Unsatisfactory**

Insp. Type: <b>ES</b>	Insp. Stat: <b>PR</b>	Plugged:      Pass/Fail:
Violation: <b>Y</b>		NOAV Sent: <b>Y</b>
UIC Violation Type:		Brhd. Pressure:
Inj. Pressure:		T-C Ann. Pressure:
Date Corrective Action Due: <b>10/31/2008</b>		Date Remedied:

### Pit Inspection

Pit Type: **PW**      Oil on Pit: **N**      Freeboard:


Number of Pits: **1**    Number covered or lined: **0**    Number uncovered or unlined: **0**

Comments: **PIT IN USE BUT PUMP NOT INSTALLED AT WELL**

### Field Inspection Comments and Observations

Insp. Comment	Inspection/Violation Comments
ACTION	REMOVE UNUSED EQUIPMENT FROM WELL SITE.
FENCECOMMENT	PIT FENCED
GENHOUSE	UNUSED EQUIPMENT ON WELL SITE
WELLSIGN	PIONNER AND PETROGULF SIGNS VISIBLE.

# COGIS - Field Inspection Report

			
API Number:	05-071-09009-00	Well Name:	WOOD #2-43 R
Well Location:	NESE 2 33S 68W	Lat:	Long:
Operator #:	10084	Operator Name:	PIONEER NATURAL RESOURCES USA INC
Inspection Date:	8/30/2008	Inspector:	PETER GINTAUTAS

Inspection was: **Unsatisfactory**

Insp. Type: <b>SR</b>	Insp. Stat: <b>ND</b>	Plugged:      Pass/Fail:
Violation: <b>Y</b>		NOAV Sent: <b>N</b>
UIC Violation Type:		Brhd. Pressure:
Inj. Pressure:		T-C Ann. Pressure:
Date Corrective Action Due: <b>10/31/2008</b>		Date Remedied:

## **Pit Inspection**

Pit Type: **PW**      Oil on Pit:      Freeboard:

Number of Pits:      Number covered or lined: **0**      Number uncovered or unlined: **0**

Comments: **FUTURE RESERVE PIT IS NOW DRY**

## **Field Inspection Comments and Observations**

Insp. Comment	Inspection/Violation Comments
ACTION	REMOVE UNUSED EQUIPMENT AND ENSURE THAT ANY SIGNS ON PAD HAVE CURRENT EMERGENCY CONTACT NUMBERS
FENCECOMMENT	PIT FENCED
GENHOUSE	UNUSED EQUIPMENT ON PAD
WELLSIGN	BOTH PETROGULF AND PIONEER SIGNS VISIBLE AT WELL.