

## GROUNDWATER MONITORING REPORT FEBRUARY 2013

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WIEDEMAN 21B, 24-21, 21-2 (API 05-123-11427)  
REMEDIATION # 4071

PDC ENERGY, INC.  
DJ BASIN

This report summarizes the results of recent groundwater sampling conducted by LT Environmental, Inc. (LTE), on behalf of PDC Energy, Inc. (PDC), at the Wiedeman 21B, 24-21, 21-2 site located in the Denver Julesburg Basin (DJ Basin) of northeastern Colorado (Figure 1).

Prior to sampling, groundwater level measurements were collected from the monitoring wells and are summarized in Table 1. A site map illustrating well locations is presented on Figure 2. Following purging, groundwater samples were collected and then submitted under strict chain of custody protocol to Summit Scientific in Golden, Colorado for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8260B. Analytical results from the groundwater samples are also presented in Table 1. The laboratory analytical report is attached.

LTE will continue to conduct quarterly groundwater monitoring events with the goal of observing four consecutive quarters of analytical results in compliance with applicable regulatory standards as set forth on Table 910-1 of the Colorado Oil and Gas Commission Rules.



**TABLE 1**  
**GROUNDWATER ANALYTICAL AND FIELD RESULTS**  
**WIEDEMAN 21B, 24-21, 21-2    API No. 05-123-11427**  
**WELD COUNTY**  
**PDC ENERGY, INC.**

<b>Well Name</b>	<b>Date</b>	<b>Benzene (ug/L)</b>	<b>Toluene (ug/L)</b>	<b>Ethyl-benzene (ug/L)</b>	<b>Xylenes (ug/L)</b>	<b>Depth to Water (ft btoc)</b>
GW1	06/29/2007	<b>180</b>	15	<1.0	740	NM
MW01	08/17/2007	<b>210</b>	<1.0	91	360	6.19
	02/21/2008	<b>30</b>	<1.0	14	<1.0	12.65
	05/06/2008	<b>22</b>	<1.0	<1.0	<1.0	12.72
	08/27/2008	<b>500</b>	<1.0	110	290	6.68
	11/12/2008	<b>350</b>	<1.0	63	180	9.63
	02/09/2009	<b>12</b>	<1.0	5.1	3.1	11.90
	05/08/2009	<b>130</b>	<1.0	18	6.5	10.98
	08/28/2009	<b>270</b>	<1.0	77	81	6.18
	11/11/2009	<b>800</b>	<1.0	71	210	9.06
	02/25/2010	<b>13</b>	<1.0	2.1	5.0	11.70
	05/18/2010	<b>200</b>	<1.0	48	100	NM
	08/11/2010	<b>310</b>	<1.0	110	180	5.90
	11/10/2010	<b>180</b>	<1.0	15	20	10.30
	02/24/2011	<b>33</b>	<1.0	4.6	12	12.62
	05/05/2011	<b>17</b>	<1.0	1.4	<1.0	NM
	08/02/2011	<b>170</b>	<1.0	100	200	5.64
	11/30/2011	<b>7.2</b>	<1.0	2.2	2.3	8.80
	02/21/2012	<b>200</b>	1.2	82	210	10.61
	05/29/2012	<b>180</b>	<1.0	120	350	9.37
	08/17/2012	<b>120</b>	<1.0	63	80	5.73
	11/28/2012	<b>33</b>	<1.0	23	9.8	10.55
	02/12/2013	2.1	<1.0	<1.0	<1.0	12.35
MW02	08/17/2007	<1.0	<1.0	<1.0	<1.0	5.43
	02/21/2008	<b>7.4</b>	<1.0	1.1	2.2	12.20
	05/06/2008	1.4	<1.0	<1.0	<1.0	12.47
	08/27/2008	<b>12</b>	<1.0	1.6	<1.0	6.12
	11/12/2008	<b>59</b>	<1.0	38	43	9.38
	02/09/2009	<b>12</b>	<1.0	9.6	<1.0	11.60
	05/08/2009	<b>8.2</b>	<1.0	4.2	11	10.42
	08/28/2009	<b>5.5</b>	<1.0	<1.0	7.7	5.53
	11/11/2009	<b>22</b>	<1.0	37	52	8.72
	02/25/2010	<1.0	<1.0	1.3	<1.0	11.35
	05/18/2010	<b>8.7</b>	<1.0	14	12	NM
	08/11/2010	<1.0	<1.0	<1.0	<1.0	5.26
	11/10/2010	<1.0	<1.0	<1.0	<1.0	10.00
	02/24/2011	<1.0	<1.0	<1.0	<1.0	12.22
	05/05/2011	<1.0	<1.0	<1.0	<1.0	NM
	08/02/2011	<1.0	<1.0	<1.0	<1.0	4.84
	11/30/2011	<1.0	<1.0	5.9	<1.0	7.64
	02/21/2012	1.1	<1.0	14	30	10.23
	05/29/2012	<1.0	<1.0	18	30	8.84
	08/17/2012	<1.0	<1.0	3.0	10	5.09
	11/28/2012	<1.0	<1.0	<1.0	<1.0	10.15
	02/12/2013	<1.0	1.8	<1.0	5.0	11.95
MW03	08/17/2007	<1.0	<1.0	<1.0	<1.0	6.23
	02/21/2008	<1.0	<1.0	<1.0	<1.0	13.08
	05/06/2008	<1.0	<1.0	<1.0	<1.0	13.68
	08/27/2008	<1.0	<1.0	<1.0	<1.0	7.10
	11/12/2008	<1.0	<1.0	<1.0	<1.0	10.64
	02/09/2009	<1.0	<1.0	<1.0	<1.0	12.84

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	05/08/2009	<1.0	<1.0	<1.0	<1.0	11.76
	08/28/2009	<1.0	<1.0	<1.0	<1.0	6.51
	11/11/2009	<1.0	<1.0	<1.0	<1.0	10.01
	02/25/2010	<1.0	<1.0	<1.0	<1.0	12.55
	05/18/2010	<1.0	<1.0	<1.0	<1.0	NM
	08/11/2010	<1.0	<1.0	<1.0	<1.0	6.20
	11/10/2010	<1.0	<1.0	<1.0	<1.0	11.23
	02/24/2011	<1.0	<1.0	<1.0	<1.0	13.44
	05/05/2011	<1.0	<1.0	<1.0	<1.0	NM
	08/02/2011	<1.0	<1.0	<1.0	<1.0	13.82
	11/30/2011	<1.0	<1.0	<1.0	<1.0	8.80
	02/21/2012	<1.0	<1.0	<1.0	<1.0	11.49
	05/29/2012	1.5	2.4	<1.0	<1.0	9.79
	08/17/2012	<1.0	<1.0	<1.0	<1.0	6.13
	11/28/2012	<1.0	<1.0	<1.0	<1.0	11.46
	02/12/2013	<1.0	2.7	<1.0	7.2	13.21
MW04	02/21/2008	<1.0	<1.0	<1.0	<1.0	13.20
	05/06/2008	<1.0	<1.0	<1.0	<1.0	13.38
	08/27/2008	<1.0	<1.0	<1.0	<1.0	NM
	11/12/2008	<1.0	<1.0	<1.0	<1.0	NM
	02/09/2009	<1.0	<1.0	<1.0	<1.0	NM
	05/08/2009	<1.0	<1.0	<1.0	<1.0	NM
	11/11/2009	<1.0	<1.0	<1.0	<1.0	NM
	02/25/2010	<1.0	<1.0	<1.0	<1.0	0.00
	05/18/2010	<1.0	<1.0	<1.0	<1.0	NM
	08/11/2010	<1.0	<1.0	<1.0	<1.0	7.54
	11/10/2010	<1.0	<1.0	<1.0	<1.0	10.61
	02/24/2011	<1.0	<1.0	<1.0	<1.0	NM
	05/05/2011	<1.0	<1.0	<1.0	<1.0	NM
	08/02/2011	<1.0	<1.0	<1.0	<1.0	7.14
	11/30/2011	<1.0	<1.0	<1.0	<1.0	8.50
	02/21/2012	<1.0	<1.0	<1.0	<1.0	10.92
MW05	05/29/2012	<1.0	<1.0	<1.0	<1.0	10.76
	08/17/2012	<1.0	<1.0	<1.0	<1.0	6.75
	11/28/2012	<1.0	<1.0	<1.0	<1.0	10.63
	02/12/2013	1.3	8.7	1.5	22	12.51
	02/21/2008	<1.0	<1.0	<1.0	<1.0	13.10
	05/06/2008	<1.0	<1.0	<1.0	<1.0	13.24
	08/27/2008	<1.0	<1.0	<1.0	<1.0	7.17
	11/12/2008	<1.0	<1.0	<1.0	<1.0	9.86
	02/09/2009	<1.0	<1.0	<1.0	<1.0	12.20
	05/08/2009	<1.0	<1.0	<1.0	<1.0	11.30
	08/28/2009	<1.0	<1.0	<1.0	<1.0	6.83
	11/11/2009	<1.0	<1.0	<1.0	<1.0	9.31
	02/25/2010	<1.0	<1.0	<1.0	<1.0	12.00
	05/18/2010	<1.0	<1.0	<1.0	<1.0	NM
	08/11/2010	<1.0	<1.0	<1.0	<1.0	6.58
	11/10/2010	<1.0	<1.0	<1.0	<1.0	10.67
	02/24/2011	<1.0	<1.0	<1.0	<1.0	12.88
	05/05/2011	<1.0	<1.0	<1.0	<1.0	NM
	08/02/2011	<1.0	<1.0	<1.0	<1.0	6.12

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Well Name	Date	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Xylenes (ug/L)	Depth to Water (ft btoc)
	11/30/2011	<1.0	<1.0	<1.0	<1.0	9.32
	02/21/2012	<1.0	<1.0	<1.0	<1.0	10.95
	05/29/2012	<1.0	<1.0	<1.0	<1.0	10.09
	08/17/2012	<b>170</b>	<1.0	<1.0	<1.0	6.20
	11/28/2012	<1.0	<1.0	<1.0	<1.0	10.79
	02/12/2013	<1.0	4.5	<1.0	11	12.54
<b>Basic Standards for Groundwater</b>		<b>5</b>	<b>560</b>	<b>700</b>	<b>1400</b>	

Notes: < - less than                      ug/L - micrograms per Liter                      NA - Not Analyzed/Not Available  
ft btoc - feet below top of casing                      NM - Not measured                      API - American Petroleum Institute  
Basic Standards for Groundwater are taken from the Colorado Department of Health and Environment (CDPHE) -  
Water Quality Control Commission (WQCC) Regulation 41, May 2008  
Bold numbers indicate result equalled or exceeded standard.



