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received 12/01/2015
Project 4212
Document 2144729

May 21, 2015

Mr. Chris Canfield, P.G.
Environmental Protection Specialist, Northeast Region
Colorado Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801
Denver, CO 80203

**RE: FORM 27 SUPPLEMENT AND REQUEST FOR NO FURTHER ACTION (NFA)
BUNYAN 1 TANK BATTERY
API #: 05-123-11273
NESW S21 T4N R67W
REMEDIATION #: 4212**

Dear Mr. Canfield:

PDC Energy, Inc. (PDC) is submitting this Form 27 Supplement and Request for No Further Action (NFA) to the Colorado Oil and Gas Commission (COGCC) to summarize additional remediation and environmental sampling that was performed by Tasman Geosciences (Tasman), on behalf of PDC at the Bunyan 1 tank battery (Figure 1). On January 10, 2008, a historic release was discovered during the replacement of the produced water vessel. LT Environmental (LTE) was contracted by PDC to complete excavation oversight, environmental sampling, and quarterly groundwater monitoring. A Form 19 was submitted to the COGCC on January 18, 2008 and a Form 27 was submitted on April 21, 2008. The COGCC issued Remediation #4212 to the project.

In March 2013, remediation and groundwater monitoring responsibilities were transferred to Tasman. A summary of additional remediation and sampling activities completed on site are described below.

Post Form 27 Site Activities

Quarterly groundwater monitoring commenced on February 27, 2008 at four temporary monitoring well locations (MW01 – MW04), as illustrated on Figure 3. Two down-gradient monitoring wells (MW05 – MW06) were installed during the first quarter 2009 and second quarter 2011 to establish point of compliance. Monitoring well MW05 was destroyed during the first quarter 2010 and was subsequently replaced as MW05R during the second quarter 2011. Groundwater samples were submitted to Summit Scientific Laboratories (Summit) for laboratory

analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX).

In March 2013, chemical oxidant (chem-ox) injections were completed on site to address residual dissolved phase petroleum hydrocarbon concentrations. Approximately 450 gallons of 20% persulfate were injected into temporary well MW03, which consistently exhibited BTEX concentrations in exceedance of regulatory standards since installation in 2008. Following chem-ox injections, monitored natural attenuation (MNA) was selected as the remedial strategy for the site.

During the first quarter 2015, four consecutive quarters of constituent concentrations in compliance with COGCC Table 910-1 groundwater standards were achieved. Groundwater analytical results from the fourth quarter 2014 and first quarter 2015 are illustrated on Figure 3. Groundwater analytical results are summarized in Table 2 and the laboratory analytical reports are included as Attachment A.

Request for No Further Action

Based on groundwater analytical results described herein, PDC is requesting a No Further Action (NFA) determination from the COGCC for this location.

If you have any questions regarding this location, please contact me by phone at (303) 318-6144.

Sincerely,

Charity B. Fleenor
Director of EHS
PDC Energy, Inc.

Enclosures:

Figure 1 – Site Location Map
Figure 2 – Site Map (Prepared by LTE)
Figure 3 – Groundwater Analytical Results Map
Table 1 – Soil Sample Analytical Results (Prepared by LTE)
Table 1 – Groundwater Analytical Results Summary Table
Attachment A – Laboratory Analytical Reports

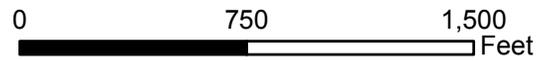
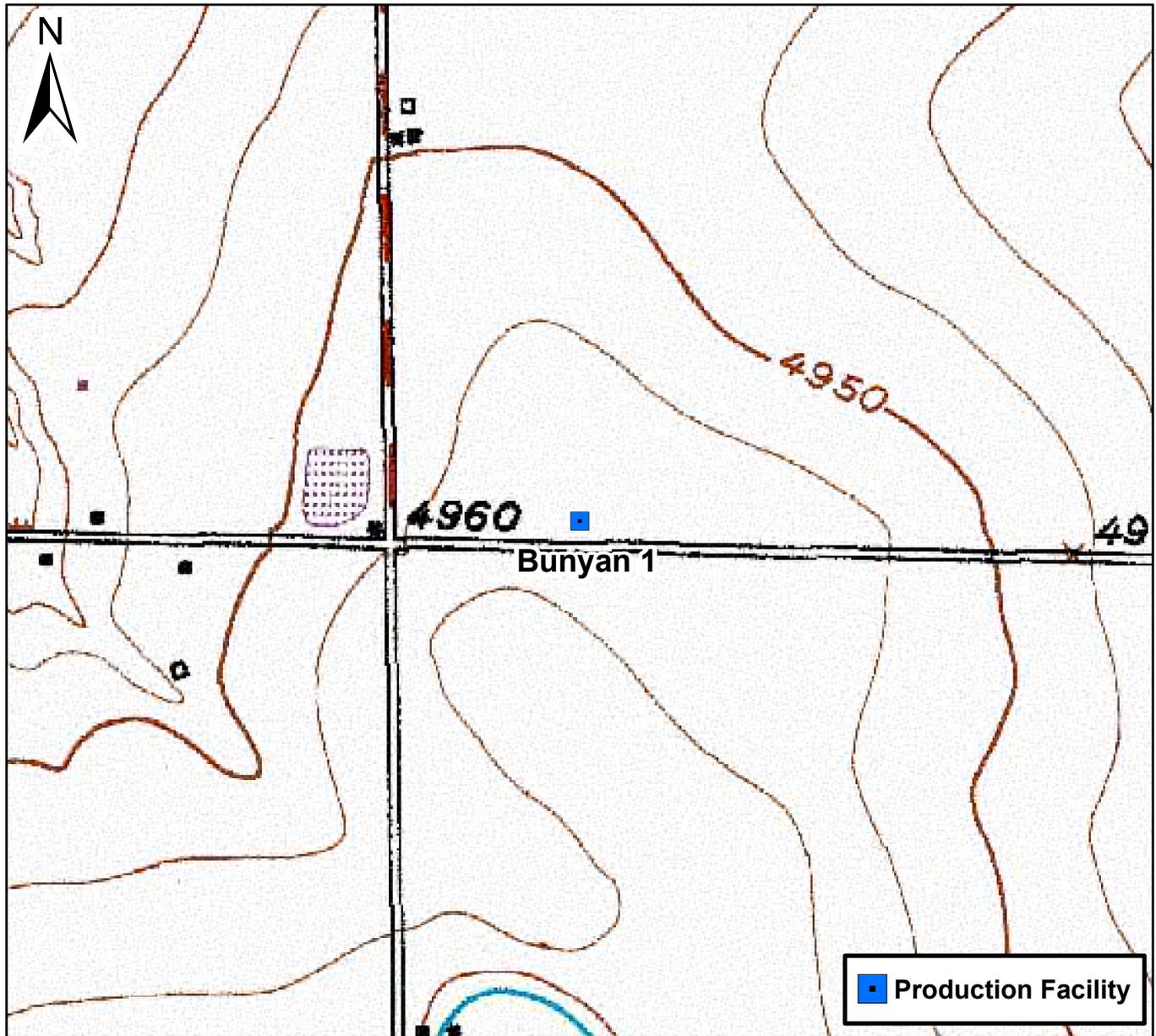
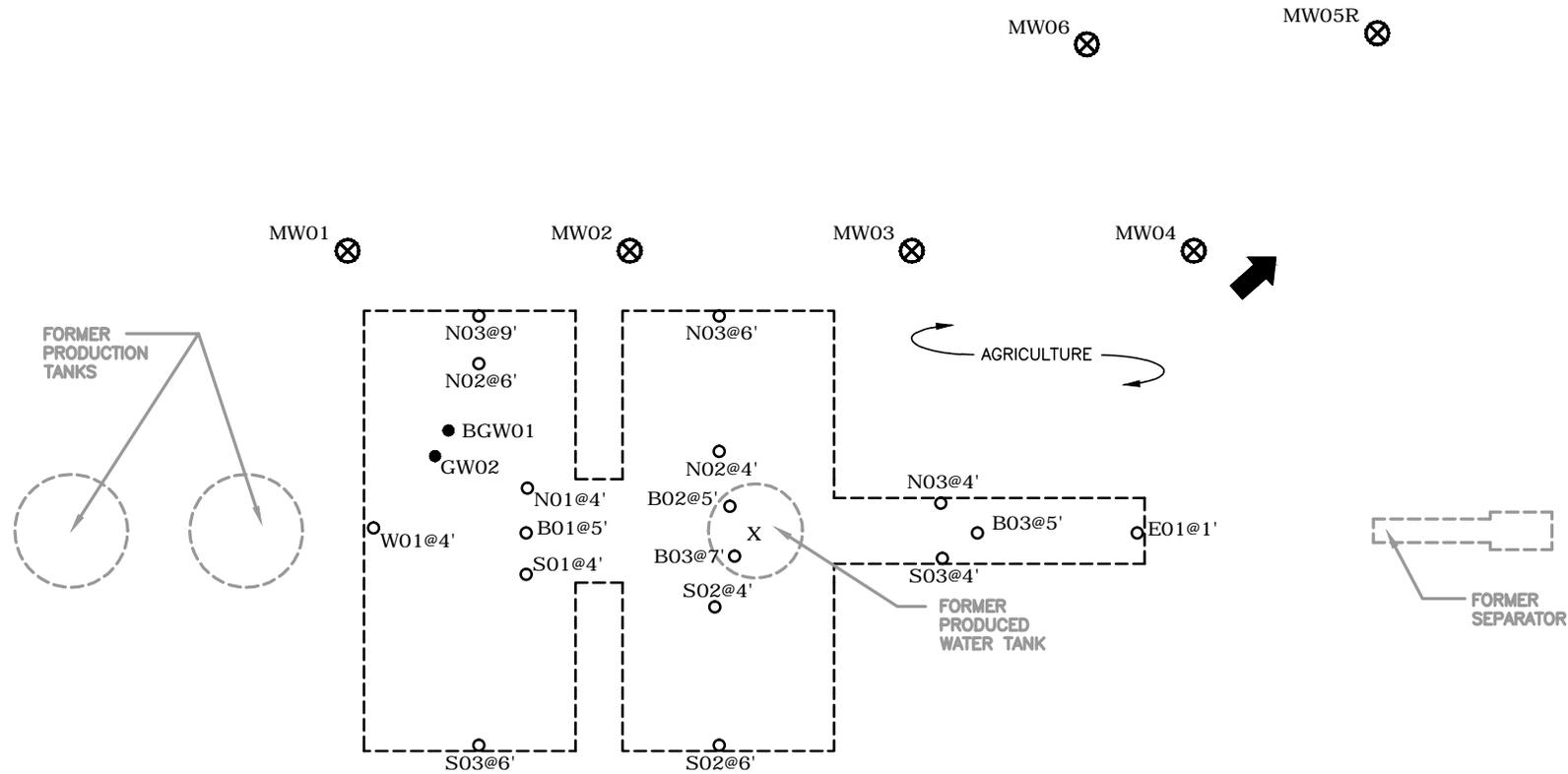


Figure 1

Site Location Map
 Bunyan 1
 NESW S21 T4N R67W
 Weld County, Colorado





WCR 42

LEGEND

- ⊗ MONITORING WELL
- SOIL SAMPLE
- EXCAVATION GROUNDWATER SAMPLE
- X RELEASE
- - - - - EXTENT OF EXCAVATION
- ➔ ESTIMATED GROUNDWATER FLOW DIRECTION

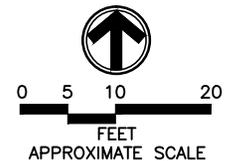


FIGURE 2
SITE MAP
 BUNYAN No. 1
 NESW 21-T4N-R67W
 WELD COUNTY, CO
 PETROLEUM DEVELOPMENT CORPORATION



PDC087603

MW01		
Compound (ug/L)	12/4/2014	3/17/2015
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Total Xylenes	<1.0	<1.0

MW02		
Compound (ug/L)	12/4/2014	3/17/2015
Benzene	NS	NS
Toluene	NS	NS
Ethylbenzene	NS	NS
Total Xylenes	NS	NS

MW06		
Compound (ug/L)	12/4/2014	3/17/2015
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Total Xylenes	<1.0	<1.0



MW05R		
Compound (ug/L)	12/4/2014	3/17/2015
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Total Xylenes	<1.0	<1.0

MW01

MW02

MW03

MW04

MW06

MW05R

Surface
Drainage

Agriculture

300 bbl
Condensate
Tank

300 bbl
Condensate
Tank

100 bbl
PW Tank

MW03		
Compound (ug/L)	12/4/2014	3/17/2015
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Total Xylenes	<1.0	2.0

MW04		
Compound (ug/L)	12/4/2014	3/17/2015
Benzene	NS	NS
Toluene	NS	NS
Ethylbenzene	NS	NS
Total Xylenes	NS	NS

Note: Surface drainage is estimated based on site topography and is not related to regional topography.

Weld County Rd 42

Facility Diagram
PDC Energy – DJ Basin
Bunyan #1
NESW S21 T4N R67W
Weld County, CO



6899 Pecos Street
Unit C
Denver, CO 80221

LEGEND

- Former Site Features
- ⊗ Temporary Groundwater Monitoring Well

FIGURE 3
GROUNDWATER ANALYTICAL RESULTS
Not to Scale

DRAWN BY: ESS
DATE: 4/2/2015

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
BUNYAN 1 (API No. 05-123-11273)
WELD COUNTY
PETROLEUM DEVELOPMENT CORPORATION

Sample ID	Depth (ft bgs)	Date Sampled	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Xylenes (mg/kg)	TPH (mg/kg)
B01	5	01/04/2008	NA	NA	NA	NA	4400
B02	5	01/04/2008	NA	NA	NA	NA	1900
B03	5	01/04/2008	NA	NA	NA	NA	<100
	7	01/11/2008	NA	NA	NA	NA	2600
E01	1	01/04/2008	NA	NA	NA	NA	<100
N01	4	01/04/2008	NA	NA	NA	NA	<100
N02	4	01/04/2008	NA	NA	NA	NA	3600
	6	01/10/2008	NA	NA	NA	NA	960
N03	4	01/04/2008	NA	NA	NA	NA	<100
	6	01/10/2008	NA	NA	NA	NA	<100
	9	01/11/2008	NA	NA	NA	NA	<100
S01	4	01/04/2008	NA	NA	NA	NA	2070
S02	4	01/04/2008	NA	NA	NA	NA	5200
	6	01/10/2008	NA	NA	NA	NA	120
S03	4	01/04/2008	NA	NA	NA	NA	<100
	6	01/10/2008	NA	NA	NA	NA	<100
W01	4	01/04/2008	NA	NA	NA	NA	<100
COGCC Sensitive Area Standard			NS	NS	NS	NS	1000

Notes: < - less than stated laboratory reporting limit

TPH - Total Petroleum Hydrocarbons (C6-C28)

API - American Petroleum Institute

Bold numbers indicate result equalled or exceeded standard.

COGCC Sensitive Area Standard is taken from COGCC Table 910-1, prior to April 1, 2009.

NA - Not Analyzed

NS - No Standard

mg/kg - milligrams per kilogram

ft bgs - feet below ground surface



**TABLE 2
BUNYAN 1
GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE**

Sample ID	Date Sampled	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)
COGCC Table 910-1 Groundwater Standard (ug/L) ⁽¹⁾		5	560	700	1,400
BGW01	1/10/2008	4,200	1.8	450	2,900
GW02	9/8/2008	1,700	26	330	2,800
MW01	2/27/2008	<1.0	<1.0	<1.0	<1.0
MW01	6/26/2008	<1.0	<1.0	<1.0	<1.0
MW01	9/24/2008	<1.0	<1.0	<1.0	<1.0
MW01	12/10/2008	<1.0	<1.0	<1.0	<1.0
MW01	3/18/2009	<1.0	<1.0	<1.0	<1.0
MW01	6/18/2009	<1.0	<1.0	<1.0	<1.0
MW01	9/24/2009	<1.0	<1.0	<1.0	<1.0
MW01	12/8/2009	<1.0	<1.0	<1.0	<1.0
MW01	3/19/2010	<1.0	<1.0	<1.0	<1.0
MW01	6/28/2010	<1.0	<1.0	<1.0	<1.0
MW01	9/16/2010	<1.0	<1.0	<1.0	<1.0
MW01	12/8/2010	<1.0	<1.0	<1.0	<1.0
MW01	3/3/2011	<1.0	<1.0	<1.0	<1.0
MW01	6/7/2011	<1.0	<1.0	<1.0	<1.0
MW01	9/27/2011	<1.0	<1.0	<1.0	<1.0
MW01	12/15/2011	<1.0	<1.0	<1.0	<1.0
MW01	3/22/2012	<1.0	<1.0	<1.0	<1.0
MW01	6/25/2012	<1.0	<1.0	<1.0	<1.0
MW01	9/14/2012	<1.0	<1.0	<1.0	<1.0
MW01	12/12/2012	<1.0	<1.0	<1.0	<1.0
MW01	6/19/2013	NS	NS	NS	NS
MW01	9/30/2013	<1.0	<1.0	<1.0	<1.0
MW01	12/19/2013	<1.0	<1.0	<1.0	<1.0
MW01	3/13/2014	<1.0	<1.0	<1.0	<1.0
MW01	6/25/2014	<1.0	<1.0	<1.0	<1.0
MW01	9/10/2014	<1.0	<1.0	<1.0	<1.0
MW01	12/4/2014	<1.0	<1.0	<1.0	<1.0
MW01	3/17/2015	<1.0	<1.0	<1.0	<1.0
MW02	2/27/2008	DRY	DRY	DRY	DRY
MW02	6/26/2008	<1.0	<1.0	<1.0	<1.0
MW02	9/24/2008	<1.0	<1.0	<1.0	<1.0
MW02	12/10/2008	<1.0	<1.0	<1.0	<1.0
MW02	3/18/2009	DRY	DRY	DRY	DRY
MW02	6/18/2009	DRY	DRY	DRY	DRY

**TABLE 2
BUNYAN 1
GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE**

Sample ID	Date Sampled	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)
COGCC Table 910-1 Groundwater Standard (ug/L) ⁽¹⁾		5	560	700	1,400
MW02	9/24/2009	<1.0	<1.0	<1.0	<1.0
MW02	12/8/2009	DRY	DRY	DRY	DRY
MW02	3/19/2010	DRY	DRY	DRY	DRY
MW02	6/28/2010	DRY	DRY	DRY	DRY
MW02	9/16/2010	<1.0	<1.0	<1.0	<1.0
MW02	12/8/2010	<1.0	<1.0	<1.0	<1.0
MW02	3/3/2011	<1.0	<1.0	<1.0	<1.0
MW02	6/7/2011	<1.0	<1.0	<1.0	<1.0
MW02	9/27/2011	<1.0	<1.0	<1.0	<1.0
MW02	12/15/2011	<1.0	<1.0	<1.0	<1.0
MW02	3/22/2012	<1.0	<1.0	<1.0	<1.0
MW02	6/25/2012	<1.0	<1.0	<1.0	<1.0
MW02	9/14/2012	<1.0	<1.0	<1.0	<1.0
MW02	12/12/2012	<1.0	<1.0	<1.0	<1.0
MW02	6/19/2013	<1.0	<1.0	<1.0	<1.0
MW02	9/24/2013	DRY	DRY	DRY	DRY
MW02	12/19/2013	DRY	DRY	DRY	DRY
MW02	3/13/2014	DRY	DRY	DRY	DRY
MW02	6/25/2014	DRY	DRY	DRY	DRY
MW02	9/10/2014	DRY	DRY	DRY	DRY
MW02	12/4/2014	DRY	DRY	DRY	DRY
MW02	3/17/2015	DRY	DRY	DRY	DRY
MW03	2/27/2008	50	<1.0	13	30
MW03	6/26/2008	100	<1.0	6.0	<1.0
MW03	9/24/2008	120	<1.0	110	220
MW03	12/10/2008	230	<1.0	140	200
MW03	3/18/2009	70	<1.0	14	220
MW03	6/18/2009	200	<1.0	110	320.0
MW03	9/24/2009	200	<1.0	63	200
MW03	12/8/2009	130	<1.0	6.1	<1.0
MW03	3/19/2010	2.1	<1.0	<1.0	<1.0
MW03	6/28/2010	83	<1.0	14	140
MW03	9/16/2010	53	<1.0	43	19
MW03	12/8/2010	22	<1.0	14	33
MW03	3/3/2011	170	<1.0	94	300

**TABLE 2
BUNYAN 1
GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE**

Sample ID	Date Sampled	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)
COGCC Table 910-1 Groundwater Standard (ug/L) ⁽¹⁾		5	560	700	1,400
MW03	6/7/2011	180	<1.0	130	420
MW03	7/28/2011	74	<1.0	58	160
MW03	9/27/2011	30	<1.0	46	150
MW03	12/15/2011	120	<1.0	54	100
MW03	3/22/2012	120	<1.0	31	63
MW03	6/25/2012	90	<1.0	14	25
MW03	9/14/2012	21	<1.0	5.5	12
MW03	12/12/2012	160	<1.0	3.3	6.7
MW03	6/19/2013	30	<1.0	16	94
MW03	9/24/2013	26	<1.0	12	36
MW03	12/19/2013	27	<1.0	6.0	15
MW03	3/13/2014	9.1	1.0	<1.0	4.4
MW03	6/25/2014	3.2	<1.0	<1.0	<1.0
MW03	9/10/2014	4.3	<1.0	<1.0	<1.0
MW03	12/4/2014	<1.0	<1.0	<1.0	<1.0
MW03	3/17/2015	<1.0	<1.0	<1.0	2.0
MW04	2/27/2008	DRY	DRY	DRY	DRY
MW04	6/26/2008	DRY	DRY	DRY	DRY
MW04	9/24/2008	35	<1.0	5.6	<1.0
MW04	12/10/2008	230	<1.0	130	350
MW04	3/18/2009	DRY	DRY	DRY	DRY
MW04	6/18/2009	DRY	DRY	DRY	DRY
MW04	9/24/2009	DRY	DRY	DRY	DRY
MW04	12/8/2009	DRY	DRY	DRY	DRY
MW04	3/19/2010	DRY	DRY	DRY	DRY
MW04	6/28/2010	DRY	DRY	DRY	DRY
MW04	9/16/2010	<1.0	<1.0	<1.0	<1.0
MW04	12/8/2010	3.8	<1.0	<1.0	<1.0
MW04	3/3/2011	DRY	DRY	DRY	DRY
MW04	6/7/2011	<1.0	<1.0	<1.0	<1.0
MW04	9/27/2011	<1.0	<1.0	<1.0	<1.0
MW04	12/15/2011	2.9	<1.0	<1.0	<1.0
MW04	3/22/2012	<1.0	<1.0	<1.0	<1.0
MW04	6/25/2012	1.0	<1.0	<1.0	<1.0
MW04	9/14/2012	DRY	DRY	DRY	DRY
MW04	12/12/2012	DRY	DRY	DRY	DRY

**TABLE 2
BUNYAN 1
GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE**

Sample ID	Date Sampled	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)
COGCC Table 910-1 Groundwater Standard (ug/L) ⁽¹⁾		5	560	700	1,400
MW04	6/19/2013	DRY	DRY	DRY	DRY
MW04	9/24/2013	DRY	DRY	DRY	DRY
MW04	12/19/2013	DRY	DRY	DRY	DRY
MW04	3/13/2014	DRY	DRY	DRY	DRY
MW04	6/25/2014	DRY	DRY	DRY	DRY
MW04	9/10/2014	DRY	DRY	DRY	DRY
MW04	12/4/2014	DRY	DRY	DRY	DRY
MW04	3/17/2015	DRY	DRY	DRY	DRY
MW05	1/6/2009	<1.0	<1.0	<1.0	<1.0
MW05	3/18/2009	<1.0	<1.0	<1.0	<1.0
MW05	6/18/2009	<1.0	<1.0	<1.0	<1.0
MW05	9/24/2009	<1.0	<1.0	<1.0	<1.0
MW05	12/8/2009	<1.0	<1.0	<1.0	<1.0
MW05	3/19/2010	NS	NS	NS	NS
MW05	6/28/2010	NS	NS	NS	NS
MW05	9/16/2010	NS	NS	NS	NS
MW05	12/8/2010	NS	NS	NS	NS
MW05	3/3/2011	NS	NS	NS	NS
MW05	12/15/2011	<1.0	<1.0	<1.0	<1.0
MW05	3/22/2012	<1.0	<1.0	<1.0	<1.0
MW05R	4/19/2011	<1.0	<1.0	<1.0	<1.0
MW05R	6/7/2011	<1.0	<1.0	<1.0	<1.0
MW05R	9/27/2011	<1.0	<1.0	<1.0	<1.0
MW05R	6/25/2012	<1.0	<1.0	<1.0	<1.0
MW05R	9/14/2012	<1.0	<1.0	<1.0	<1.0
MW05R	12/12/2012	<1.0	<1.0	<1.0	<1.0
MW05R	6/19/2013	<1.0	<1.0	<1.0	<1.0
MW05R	9/24/2013	<1.0	<1.0	<1.0	<1.0
MW05R	12/19/2013	<1.0	<1.0	<1.0	<1.0
MW05R	3/13/2014	<1.0	<1.0	<1.0	<1.0
MW05R	6/25/2014	<1.0	<1.0	<1.0	<1.0
MW05R	9/10/2014	<1.0	<1.0	<1.0	<1.0
MW05R	12/4/2014	<1.0	<1.0	<1.0	<1.0
MW05R	3/17/2015	<1.0	<1.0	<1.0	<1.0
MW06	4/19/2011	<1.0	<1.0	<1.0	<1.0
MW06	6/7/2011	<1.0	<1.0	<1.0	<1.0

**TABLE 2
BUNYAN 1
GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE**

Sample ID	Date Sampled	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)
COGCC Table 910-1 Groundwater Standard (ug/L) ⁽¹⁾		5	560	700	1,400
MW06	9/27/2011	<1.0	<1.0	<1.0	<1.0
MW06	6/25/2012	<1.0	<1.0	<1.0	<1.0
MW06	9/14/2012	<1.0	<1.0	<1.0	<1.0
MW06	12/12/2012	<1.0	<1.0	<1.0	<1.0
MW06	6/19/2013	1.3	<1.0	<1.0	<1.0
MW06	9/24/2013	<1.0	<1.0	<1.0	<1.0
MW06	12/19/2013	<1.0	<1.0	<1.0	<1.0
MW06	3/13/2014	<1.0	<1.0	<1.0	<1.0
MW06	6/25/2014	<1.0	<1.0	<1.0	<1.0
MW06	9/10/2014	<1.0	<1.0	<1.0	<1.0
MW06	12/4/2014	<1.0	<1.0	<1.0	<1.0
MW06	3/17/2015	<1.0	<1.0	<1.0	<1.0

Notes:

1. Groundwater standards referenced from 2 CCR 404-1, Table 910-1, effective February 1, 2014.

COGCC = Colorado Oil and Gas Conservation Commission

ug/L = Micrograms per liter

(<) = Analytical result is less than the indicated laboratory reporting limit.

NS = Not sampled, well damaged or destroyed.

DRY = Not sampled, insufficient water in well.

BOLD= Analytical result is in exceedance of COGCC groundwater standards.

ATTACHMENT A

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

July 07, 2008

John Peterson
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Bunyan No.1

Enclosed are the results of analyses for samples received by Summit Scientific on 06/30/08 13:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'BS', with a long, sweeping horizontal line extending to the right.

Ben Shrewsbury
Vice President / Laboratory Director



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
Project Manager: John Peterson

Reported:
07/07/08 09:16

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW03	R807002-01	Water	06/26/08 13:30	06/30/08 13:40
MW02	R807002-02	Water	06/26/08 13:20	06/30/08 13:40
MW01	R807002-03	Water	06/26/08 13:10	06/30/08 13:40

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
 Project Manager: John Peterson

Reported:
 07/07/08 09:16

MW03
R807002-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/26/08 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	100	1.0	ug/l	1	8070305	07/03/08	07/06/08	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	6.0	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/26/08 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		82.7 %	80-120		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		97.7 %	92.1-106		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		90.2 %	84.5-110		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
 Project Manager: John Peterson

Reported:
 07/07/08 09:16

MW02
R807002-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/26/08 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	8070305	07/03/08	07/06/08	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/26/08 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>105 %</i>	<i>80-120</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: Toluene-d8</i>		<i>97.0 %</i>	<i>92.1-106</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>94.7 %</i>	<i>84.5-110</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
 Project Manager: John Peterson

Reported:
 07/07/08 09:16

MW01
R807002-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/26/08 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	8070305	07/03/08	07/06/08	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/26/08 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		83.5 %	80-120		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		97.0 %	92.1-106		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		94.0 %	84.5-110		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
Project Manager: John Peterson

Reported:
07/07/08 09:16

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike Level	Source		%REC		RPD		Notes
	Result	Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 8070305 - EPA 5030 Water MS

Blank (8070305-BLK1)

Prepared: 07/03/08 Analyzed: 07/05/08

Benzene	ND	1.0	ug/l								
Toluene	ND	1.0	"								
Ethylbenzene	ND	1.0	"								
Xylenes (total)	ND	1.0	"								
Surrogate: 1,2-Dichloroethane-d4	11.6		"	13.3		87.2	80-120				
Surrogate: Toluene-d8	12.8		"	13.3		96.2	92.1-106				
Surrogate: 4-Bromofluorobenzene	13.0		"	13.3		97.7	84.5-110				

LCS (8070305-BS1)

Prepared: 07/03/08 Analyzed: 07/05/08

Benzene	32.4	1.0	ug/l	33.3		97.3	61.4-110				
Toluene	35.4	1.0	"	33.3		106	54.2-116				
Surrogate: 1,2-Dichloroethane-d4	11.3		"	13.3		85.0	80-120				
Surrogate: Toluene-d8	12.9		"	13.3		97.0	92.1-106				
Surrogate: 4-Bromofluorobenzene	12.6		"	13.3		94.7	84.5-110				

LCS Dup (8070305-BSD1)

Prepared: 07/03/08 Analyzed: 07/05/08

Benzene	32.4	1.0	ug/l	33.3		97.3	61.4-110	0.00	11.8		
Toluene	35.5	1.0	"	33.3		107	54.2-116	0.282	12.2		
Surrogate: 1,2-Dichloroethane-d4	11.3		"	13.3		85.0	80-120				
Surrogate: Toluene-d8	12.9		"	13.3		97.0	92.1-106				
Surrogate: 4-Bromofluorobenzene	12.6		"	13.3		94.7	84.5-110				

Matrix Spike (8070305-MS1)

Source: R807001-01

Prepared: 07/03/08 Analyzed: 07/05/08

Benzene	32.2	1.0	ug/l	33.3	ND	96.7	61.5-109				
Toluene	35.3	1.0	"	33.3	ND	106	55.6-113				
Surrogate: 1,2-Dichloroethane-d4	12.8		"	13.3		96.2	80-120				
Surrogate: Toluene-d8	13.0		"	13.3		97.7	92.1-106				
Surrogate: 4-Bromofluorobenzene	12.7		"	13.3		95.5	84.5-110				

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
 Project Manager: John Peterson

Reported:
 07/07/08 09:16

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 8070305 - EPA 5030 Water MS

Matrix Spike Dup (8070305-MSD1)	Source: R807001-01			Prepared: 07/03/08	Analyzed: 07/05/08					
Benzene	31.2	1.0	ug/l	33.3	ND	93.7	61.5-109	3.15	21.7	
Toluene	34.1	1.0	"	33.3	ND	102	55.6-113	3.46	9.18	
Surrogate: 1,2-Dichloroethane-d4	11.7		"	13.3		88.0	80-120			
Surrogate: Toluene-d8	12.9		"	13.3		97.0	92.1-106			
Surrogate: 4-Bromofluorobenzene	12.5		"	13.3		94.0	84.5-110			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
Project Manager: John Peterson

Reported:
07/07/08 09:16

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

October 01, 2008

John Peterson
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Bunyan No.1

Enclosed are the results of analyses for samples received by Summit Scientific on 09/24/08 16:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'PS', with a long horizontal flourish extending to the right.

Paul Shrewsbury For Ben Shrewsbury
Vice President / Laboratory Director



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: John Peterson

Reported:
10/01/08 09:11

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	R809128-01	Water	09/24/08 11:45	09/24/08 16:15
MW02	R809128-02	Water	09/24/08 11:55	09/24/08 16:15
MW03	R809128-03	Water	09/24/08 12:05	09/24/08 16:15
MW04	R809128-04	Water	09/24/08 12:20	09/24/08 16:15

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
 Project Manager: John Peterson

Reported:
 10/01/08 09:11

MW01
R809128-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/24/08 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	8092610	09/26/08	09/28/08	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **09/24/08 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.5 %	77.3-121		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		96.2 %	91.4-107		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		90.2 %	85.3-109		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
 Project Manager: John Peterson

Reported:
 10/01/08 09:11

MW02
R809128-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/24/08 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	8092610	09/26/08	09/28/08	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **09/24/08 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		116 %	77.3-121		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		102 %	91.4-107		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		92.5 %	85.3-109		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
 Project Manager: John Peterson

Reported:
 10/01/08 09:11

MW03
R809128-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/24/08 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	120	1.0	ug/l	1	8092610	09/26/08	09/28/08	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	110	1.0	"	"	"	"	"	"	
Xylenes (total)	220	1.0	"	"	"	"	"	"	

Date Sampled: **09/24/08 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		94.0 %	77.3-121		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.5 %	91.4-107		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		99.2 %	85.3-109		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
 Project Manager: John Peterson

Reported:
 10/01/08 09:11

MW04
R809128-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/24/08 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	35	1.0	ug/l	1	8092610	09/26/08	09/28/08	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	5.6	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **09/24/08 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		117 %	77.3-121		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		100 %	91.4-107		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		92.5 %	85.3-109		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: John Peterson

Reported:
10/01/08 09:11

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike Level	Source		%REC		RPD		Notes
	Result	Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 8092610 - EPA 5030 Water MS

Blank (8092610-BLK1)

Prepared: 09/26/08 Analyzed: 09/27/08

Benzene	ND	1.0	ug/l								
Toluene	ND	1.0	"								
Ethylbenzene	ND	1.0	"								
Xylenes (total)	ND	1.0	"								
Surrogate: 1,2-Dichloroethane-d4	11.4		"	13.3	85.7	77.3-121					
Surrogate: Toluene-d8	13.0		"	13.3	97.7	91.4-107					
Surrogate: 4-Bromofluorobenzene	11.4		"	13.3	85.7	85.3-109					

LCS (8092610-BS1)

Prepared: 09/26/08 Analyzed: 09/27/08

Benzene	28.0	1.0	ug/l	33.3	84.1	70-114					
Toluene	29.3	1.0	"	33.3	88.0	72.7-116					
Surrogate: 1,2-Dichloroethane-d4	11.1		"	13.3	83.5	77.3-121					
Surrogate: Toluene-d8	13.1		"	13.3	98.5	91.4-107					
Surrogate: 4-Bromofluorobenzene	11.4		"	13.3	85.7	85.3-109					

LCS Dup (8092610-BSD1)

Prepared: 09/26/08 Analyzed: 09/27/08

Benzene	26.8	1.0	ug/l	33.3	80.5	70-114	4.38	8.14			
Toluene	28.6	1.0	"	33.3	85.9	72.7-116	2.42	7.88			
Surrogate: 1,2-Dichloroethane-d4	11.1		"	13.3	83.5	77.3-121					
Surrogate: Toluene-d8	13.2		"	13.3	99.2	91.4-107					
Surrogate: 4-Bromofluorobenzene	12.4		"	13.3	93.2	85.3-109					

Matrix Spike (8092610-MS1)

Source: R809125-01

Prepared: 09/26/08 Analyzed: 09/27/08

Benzene	38.3	1.0	ug/l	33.3	4.7	101	66.8-117				
Toluene	31.0	1.0	"	33.3	ND	93.1	71.5-117				
Surrogate: 1,2-Dichloroethane-d4	11.6		"	13.3		87.2	77.3-121				
Surrogate: Toluene-d8	13.1		"	13.3		98.5	91.4-107				
Surrogate: 4-Bromofluorobenzene	11.8		"	13.3		88.7	85.3-109				

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
 Project Manager: John Peterson

Reported:
 10/01/08 09:11

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 8092610 - EPA 5030 Water MS

Matrix Spike Dup (8092610-MSD1)	Source: R809125-01			Prepared: 09/26/08		Analyzed: 09/27/08				
Benzene	32.3	1.0	ug/l	33.3	4.7	82.9	66.8-117	17.0	17.8	
Toluene	29.8	1.0	"	33.3	ND	89.5	71.5-117	3.95	14.4	
Surrogate: 1,2-Dichloroethane-d4	13.4		"	13.3		101	77.3-121			
Surrogate: Toluene-d8	12.8		"	13.3		96.2	91.4-107			
Surrogate: 4-Bromofluorobenzene	11.9		"	13.3		89.5	85.3-109			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: John Peterson

Reported:
10/01/08 09:11

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

December 15, 2008

John Peterson
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Bunyan No.1

Enclosed are the results of analyses for samples received by Summit Scientific on 12/10/08 16:49. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'PS', with a long horizontal flourish extending to the right.

Paul Shrewsbury For Ben Shrewsbury
Vice President / Laboratory Director



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
Project Manager: John Peterson

Reported:
12/15/08 14:30

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	R812061-01	Water	12/10/08 13:40	12/10/08 16:49
MW02	R812061-02	Water	12/10/08 13:45	12/10/08 16:49
MW03	R812061-03	Water	12/10/08 13:50	12/10/08 16:49
MW04	R812061-04	Water	12/10/08 13:55	12/10/08 16:49

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
 Project Manager: John Peterson

Reported:
 12/15/08 14:30

MW01
R812061-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/10/08 13:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	8121109	12/11/08	12/11/08	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 12/10/08 13:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>101 %</i>	<i>77.3-121</i>		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		<i>101 %</i>	<i>91.4-107</i>		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>101 %</i>	<i>85.3-109</i>		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
 Project Manager: John Peterson

Reported:
 12/15/08 14:30

MW02
R812061-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/10/08 13:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	8121109	12/11/08	12/11/08	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 12/10/08 13:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		104 %	77.3-121		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		101 %	91.4-107		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		103 %	85.3-109		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
 Project Manager: John Peterson

Reported:
 12/15/08 14:30

MW03
R812061-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/10/08 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	230	1.0	ug/l	1	8121109	12/11/08	12/11/08	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	140	1.0	"	"	"	"	"	"	
Xylenes (total)	200	1.0	"	"	"	"	"	"	

Date Sampled: **12/10/08 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		108 %	77.3-121		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		102 %	91.4-107		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		108 %	85.3-109		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
 Project Manager: John Peterson

Reported:
 12/15/08 14:30

MW04
R812061-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/10/08 13:55

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	230	1.0	ug/l	1	8121109	12/11/08	12/11/08	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	130	1.0	"	"	"	"	"	"	
Xylenes (total)	350	1.0	"	"	"	"	"	"	

Date Sampled: 12/10/08 13:55

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		106 %	77.3-121		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		102 %	91.4-107		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		108 %	85.3-109		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
Project Manager: John Peterson

Reported:
12/15/08 14:30

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 8121109 - EPA 5030 Water MS

Blank (8121109-BLK1)

Prepared & Analyzed: 12/11/08

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	13.2		"	13.3		99.2	77.3-121			
Surrogate: Toluene-d8	13.5		"	13.3		102	91.4-107			
Surrogate: 4-Bromofluorobenzene	13.6		"	13.3		102	85.3-109			

LCS (8121109-BS1)

Prepared & Analyzed: 12/11/08

Benzene	26.3	1.0	ug/l	33.3		79.0	70-114			
Toluene	27.2	1.0	"	33.3		81.7	72.7-116			
Surrogate: 1,2-Dichloroethane-d4	13.0		"	13.3		97.7	77.3-121			
Surrogate: Toluene-d8	13.1		"	13.3		98.5	91.4-107			
Surrogate: 4-Bromofluorobenzene	13.5		"	13.3		102	85.3-109			

LCS Dup (8121109-BSD1)

Prepared & Analyzed: 12/11/08

Benzene	26.9	1.0	ug/l	33.3		80.8	70-114	2.26	8.14	
Toluene	27.8	1.0	"	33.3		83.5	72.7-116	2.18	7.88	
Surrogate: 1,2-Dichloroethane-d4	13.1		"	13.3		98.5	77.3-121			
Surrogate: Toluene-d8	13.3		"	13.3		100	91.4-107			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		101	85.3-109			

Matrix Spike (8121109-MS1)

Source: R812059-01

Prepared & Analyzed: 12/11/08

Benzene	27.6	1.0	ug/l	33.3	ND	82.9	66.8-117			
Toluene	28.1	1.0	"	33.3	ND	84.4	71.5-117			
Surrogate: 1,2-Dichloroethane-d4	13.2		"	13.3		99.2	77.3-121			
Surrogate: Toluene-d8	13.2		"	13.3		99.2	91.4-107			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		101	85.3-109			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
Project Manager: John Peterson

Reported:
12/15/08 14:30

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 8121109 - EPA 5030 Water MS

Matrix Spike Dup (8121109-MSD1)	Source: R812059-01			Prepared & Analyzed: 12/11/08						
Benzene	27.2	1.0	ug/l	33.3	ND	81.7	66.8-117	1.46	17.8	
Toluene	28.2	1.0	"	33.3	ND	84.7	71.5-117	0.355	14.4	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>12.9</i>		<i>"</i>	<i>13.3</i>		<i>97.0</i>	<i>77.3-121</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.4</i>		<i>"</i>	<i>13.3</i>		<i>101</i>	<i>91.4-107</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>14.1</i>		<i>"</i>	<i>13.3</i>		<i>106</i>	<i>85.3-109</i>			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
Project Manager: John Peterson

Reported:
12/15/08 14:30

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

January 10, 2009

John Peterson
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Bunyan No.1

Enclosed are the results of analyses for samples received by Summit Scientific on 01/06/09 16:53. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'PS', with a long horizontal flourish extending to the right.

Paul Shrewsbury For Ben Shrewsbury
Vice President / Laboratory Director



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
 Project Manager: John Peterson

Reported:
 01/10/09 19:32

MW05
R901029-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/06/09 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	9010806	01/08/09	01/09/09	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **01/06/09 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		93.2 %	77.3-121		"	"	"	"	
Surrogate: Toluene-d8		100 %	91.4-107		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	85.3-109		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
Project Manager: John Peterson

Reported:
01/10/09 19:32

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike Level	Source		%REC		RPD		Notes
	Result	Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 9010806 - EPA 5030 Water MS

Blank (9010806-BLK1)

Prepared & Analyzed: 01/08/09

Benzene	ND	1.0	ug/l								
Toluene	ND	1.0	"								
Ethylbenzene	ND	1.0	"								
Xylenes (total)	ND	1.0	"								
Surrogate: 1,2-Dichloroethane-d4	12.0		"	13.3		90.2	77.3-121				
Surrogate: Toluene-d8	13.0		"	13.3		97.7	91.4-107				
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		101	85.3-109				

LCS (9010806-BS1)

Prepared & Analyzed: 01/08/09

Benzene	27.8	1.0	ug/l	33.3		83.5	70-114				
Toluene	29.6	1.0	"	33.3		88.9	72.7-116				
Surrogate: 1,2-Dichloroethane-d4	11.6		"	13.3		87.2	77.3-121				
Surrogate: Toluene-d8	13.1		"	13.3		98.5	91.4-107				
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		101	85.3-109				

LCS Dup (9010806-BSD1)

Prepared & Analyzed: 01/08/09

Benzene	27.8	1.0	ug/l	33.3		83.5	70-114	0.00	8.14		
Toluene	29.9	1.0	"	33.3		89.8	72.7-116	1.01	7.88		
Surrogate: 1,2-Dichloroethane-d4	12.5		"	13.3		94.0	77.3-121				
Surrogate: Toluene-d8	13.3		"	13.3		100	91.4-107				
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		101	85.3-109				

Matrix Spike (9010806-MS1)

Source: R901034-04

Prepared: 01/08/09 Analyzed: 01/09/09

Benzene	28.6	1.0	ug/l	33.3	ND	85.9	66.8-117				
Toluene	29.8	1.0	"	33.3	ND	89.5	71.5-117				
Surrogate: 1,2-Dichloroethane-d4	12.8		"	13.3		96.2	77.3-121				
Surrogate: Toluene-d8	13.0		"	13.3		97.7	91.4-107				
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		101	85.3-109				

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
 Project Manager: John Peterson

Reported:
 01/10/09 19:32

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 9010806 - EPA 5030 Water MS

Matrix Spike Dup (9010806-MSD1)	Source: R901034-04			Prepared: 01/08/09	Analyzed: 01/09/09						
Benzene	29.3	1.0	ug/l	33.3	ND	88.0	66.8-117	2.42	17.8		
Toluene	30.4	1.0	"	33.3	ND	91.3	71.5-117	1.99	14.4		
Surrogate: 1,2-Dichloroethane-d4	15.2		"	13.3		114	77.3-121				
Surrogate: Toluene-d8	13.0		"	13.3		97.7	91.4-107				
Surrogate: 4-Bromofluorobenzene	14.0		"	13.3		105	85.3-109				

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
Project Manager: John Peterson

Reported:
01/10/09 19:32

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

March 23, 2009

John Peterson
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Bunyan No.1

Enclosed are the results of analyses for samples received by Summit Scientific on 03/18/09 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'LS' with a long horizontal flourish extending to the right.

Logan Shrewsbury For Ben Shrewsbury
Vice President / Laboratory Director



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
Project Manager: John Peterson

Reported:
03/23/09 17:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	R903082-01	Water	03/18/09 13:00	03/18/09 16:00
MW03	R903082-03	Water	03/18/09 13:20	03/18/09 16:00
MW05	R903082-05	Water	03/18/09 13:40	03/18/09 16:00

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
 Project Manager: John Peterson

Reported:
 03/23/09 17:20

MW01
R903082-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/18/09 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	9031902	03/19/09	03/22/09	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/18/09 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>116 %</i>	<i>77.3-121</i>		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		<i>105 %</i>	<i>91.4-107</i>		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>102 %</i>	<i>85.3-109</i>		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
 Project Manager: John Peterson

Reported:
 03/23/09 17:20

MW03
R903082-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/18/09 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	70	1.0	ug/l	1	9031902	03/19/09	03/22/09	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	14	1.0	"	"	"	"	"	"	
Xylenes (total)	220	1.0	"	"	"	"	"	"	

Date Sampled: **03/18/09 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		114 %	77.3-121		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		106 %	91.4-107		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		107 %	85.3-109		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
 Project Manager: John Peterson

Reported:
 03/23/09 17:20

MW05
R903082-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/18/09 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	9031902	03/19/09	03/22/09	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/18/09 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>118 %</i>	<i>77.3-121</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: Toluene-d8</i>		<i>105 %</i>	<i>91.4-107</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>103 %</i>	<i>85.3-109</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
Project Manager: John Peterson

Reported:
03/23/09 17:20

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike Level	Source		%REC		RPD		Notes
	Result	Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 9031902 - EPA 5030 Water MS

Blank (9031902-BLK1)

Prepared: 03/19/09 Analyzed: 03/21/09

Benzene	ND	1.0	ug/l								
Toluene	ND	1.0	"								
Ethylbenzene	ND	1.0	"								
Xylenes (total)	ND	1.0	"								
Surrogate: 1,2-Dichloroethane-d4	12.8		"	13.3		96.2	77.3-121				
Surrogate: Toluene-d8	13.5		"	13.3		102	91.4-107				
Surrogate: 4-Bromofluorobenzene	12.7		"	13.3		95.5	85.3-109				

LCS (9031902-BS1)

Prepared: 03/19/09 Analyzed: 03/21/09

Benzene	26.8	1.0	ug/l	33.3		80.5	70-114				
Toluene	29.0	1.0	"	33.3		87.1	72.7-116				
Surrogate: 1,2-Dichloroethane-d4	12.9		"	13.3		97.0	77.3-121				
Surrogate: Toluene-d8	13.5		"	13.3		102	91.4-107				
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3		96.2	85.3-109				

LCS Dup (9031902-BSD1)

Prepared: 03/19/09 Analyzed: 03/21/09

Benzene	25.7	1.0	ug/l	33.3		77.2	70-114	4.19	8.14		
Toluene	28.0	1.0	"	33.3		84.1	72.7-116	3.51	7.88		
Surrogate: 1,2-Dichloroethane-d4	13.0		"	13.3		97.7	77.3-121				
Surrogate: Toluene-d8	13.6		"	13.3		102	91.4-107				
Surrogate: 4-Bromofluorobenzene	12.7		"	13.3		95.5	85.3-109				

Matrix Spike (9031902-MS1)

Source: R903076-01

Prepared: 03/19/09 Analyzed: 03/21/09

Benzene	26.3	1.0	ug/l	33.3	ND	79.0	66.8-117				
Toluene	28.3	1.0	"	33.3	ND	85.0	71.5-117				
Surrogate: 1,2-Dichloroethane-d4	13.1		"	13.3		98.5	77.3-121				
Surrogate: Toluene-d8	13.6		"	13.3		102	91.4-107				
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3		96.2	85.3-109				

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
 Project Manager: John Peterson

Reported:
 03/23/09 17:20

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 9031902 - EPA 5030 Water MS

Matrix Spike Dup (9031902-MSD1)	Source: R903076-01			Prepared: 03/19/09	Analyzed: 03/21/09					
Benzene	26.7	1.0	ug/l	33.3	ND	80.2	66.8-117	1.51	17.8	
Toluene	28.8	1.0	"	33.3	ND	86.5	71.5-117	1.75	14.4	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>15.4</i>		<i>"</i>	<i>13.3</i>		<i>116</i>	<i>77.3-121</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.7</i>		<i>"</i>	<i>13.3</i>		<i>103</i>	<i>91.4-107</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.2</i>		<i>"</i>	<i>13.3</i>		<i>99.2</i>	<i>85.3-109</i>			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
Project Manager: John Peterson

Reported:
03/23/09 17:20

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

October 05, 2009

John Peterson
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Bunyan No.1

Enclosed are the results of analyses for samples received by Summit Scientific on 09/24/09 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'PS', with a long horizontal flourish extending to the right.

Paul Shrewsbury For Ben Shrewsbury
President / Laboratory Director



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: John Peterson

Reported:
10/05/09 15:30

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	R909158-01	Water	09/24/09 10:45	09/24/09 16:00
MW02	R909158-02	Water	09/24/09 10:55	09/24/09 16:00
MW03	R909158-03	Water	09/24/09 11:05	09/24/09 16:00
MW05	R909158-04	Water	09/24/09 11:25	09/24/09 16:00

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
 Project Manager: John Peterson

Reported:
 10/05/09 15:30

MW01
R909158-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/24/09 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	9093004	09/30/09	10/02/09	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **09/24/09 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.7 %	74.3-129		"	"	"	"	
Surrogate: Toluene-d8		97.8 %	87.7-110		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.6 %	83.5-115		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
 Project Manager: John Peterson

Reported:
 10/05/09 15:30

MW02
R909158-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/24/09 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	9093004	09/30/09	10/02/09	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **09/24/09 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %	74.3-129		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.6 %	87.7-110		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		98.3 %	83.5-115		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
 Project Manager: John Peterson

Reported:
 10/05/09 15:30

MW03
R909158-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/24/09 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	200	10	ug/l	10	9093004	09/30/09	10/02/09	EPA 8260B	
Toluene	ND	1.0	"	1	"	"	"	"	
Ethylbenzene	63	1.0	"	"	"	"	"	"	
Xylenes (total)	200	1.0	"	"	"	"	"	"	

Date Sampled: **09/24/09 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		107 %	74.3-129		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		102 %	87.7-110		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		104 %	83.5-115		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
 Project Manager: John Peterson

Reported:
 10/05/09 15:30

MW05
R909158-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/24/09 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	9093004	09/30/09	10/02/09	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **09/24/09 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		100 %	74.3-129		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		99.8 %	87.7-110		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		97.7 %	83.5-115		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: John Peterson

Reported:
10/05/09 15:30

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 9093004 - EPA 5030 Water MS

Blank (9093004-BLK1)

Prepared: 09/30/09 Analyzed: 10/01/09

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	10.0		"	13.3		75.4	74.3-129			
Surrogate: Toluene-d8	13.4		"	13.3		101	87.7-110			
Surrogate: 4-Bromofluorobenzene	13.3		"	13.3		99.8	83.5-115			

LCS (9093004-BS1)

Prepared: 09/30/09 Analyzed: 10/01/09

Benzene	31.6	1.0	ug/l	33.3		94.8	70-114		2.87	8.14
Toluene	30.8	1.0	"	33.3		92.4	72.7-116		3.98	7.88
Surrogate: 1,2-Dichloroethane-d4	10.6		"	13.3		79.2	74.3-129			
Surrogate: Toluene-d8	13.7		"	13.3		103	87.7-110			
Surrogate: 4-Bromofluorobenzene	13.0		"	13.3		97.4	83.5-115			

LCS Dup (9093004-BSD1)

Prepared: 09/30/09 Analyzed: 10/01/09

Benzene	32.5	1.0	ug/l	33.3		97.5	70-114		2.87	8.14
Toluene	32.1	1.0	"	33.3		96.2	72.7-116		3.98	7.88
Surrogate: 1,2-Dichloroethane-d4	10.5		"	13.3		78.5	74.3-129			
Surrogate: Toluene-d8	13.5		"	13.3		101	87.7-110			
Surrogate: 4-Bromofluorobenzene	13.1		"	13.3		98.3	83.5-115			

Matrix Spike (9093004-MS1)

Source: R909153-03

Prepared: 09/30/09 Analyzed: 10/01/09

Benzene	32.3	1.0	ug/l	33.3	ND	96.9	66.8-117			17.8
Toluene	31.1	1.0	"	33.3	ND	93.2	71.5-117			14.4
Surrogate: 1,2-Dichloroethane-d4	11.0		"	13.3		82.9	74.3-129			
Surrogate: Toluene-d8	13.7		"	13.3		102	87.7-110			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		100	83.5-115			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: John Peterson

Reported:
10/05/09 15:30

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.374.5933 - fax

March 24, 2010

Brian Dodek
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Bunyan No.1

Enclosed are the results of analyses for samples received by Summit Scientific on 03/19/10 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Ben Shrewsbury
President / Laboratory Director



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
 Project Manager: Brian Dodek

Reported:
 03/24/10 17:54

MW01
R003123-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/19/10 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	0032201	03/22/10	03/23/10	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/19/10 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		85.4 %	70.4-127		"	"	"	"	
Surrogate: Toluene-d8		93.8 %	85.7-111		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		89.4 %	83.9-116		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
 Project Manager: Brian Dodek

Reported:
 03/24/10 17:54

MW03
R003123-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/19/10 14:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	2.1	1.0	ug/l	1	0032201	03/22/10	03/23/10	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/19/10 14:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		90.9 %	70.4-127		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		92.3 %	85.7-111		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		88.7 %	83.9-116		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
Project Manager: Brian Dodek

Reported:
03/24/10 17:54

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike Level	Source		%REC		RPD		Notes
	Result	Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 0032201 - EPA 5030 Water MS

Blank (0032201-BLK1)

Prepared: 03/22/10 Analyzed: 03/23/10

Benzene	ND	1.0	ug/l								
Toluene	ND	1.0	"								
Ethylbenzene	ND	1.0	"								
Xylenes (total)	ND	1.0	"								
Surrogate: 1,2-Dichloroethane-d4	11.6		"	13.3		86.9	70.4-127				
Surrogate: Toluene-d8	12.4		"	13.3		93.1	85.7-111				
Surrogate: 4-Bromofluorobenzene	11.7		"	13.3		87.5	83.9-116				

LCS (0032201-BS1)

Prepared: 03/22/10 Analyzed: 03/23/10

Benzene	30.0	1.0	ug/l	33.3		89.9	64.2-127		10.9		
Toluene	30.6	1.0	"	33.3		91.8	66.4-125		11.3		
Ethylbenzene	32.4	1.0	"	33.3		97.1	70-130		20		
m,p-Xylene	72.8	2.0	"	66.7		109	70-130		20		
o-Xylene	30.4	1.0	"	33.3		91.3	70-130		20		
Surrogate: 1,2-Dichloroethane-d4	12.0		"	13.3		89.9	70.4-127				
Surrogate: Toluene-d8	12.5		"	13.3		93.5	85.7-111				
Surrogate: 4-Bromofluorobenzene	11.8		"	13.3		88.6	83.9-116				

LCS Dup (0032201-BSD1)

Prepared: 03/22/10 Analyzed: 03/23/10

Benzene	30.8	1.0	ug/l	33.3		92.3	64.2-127	2.73	10.9		
Toluene	31.3	1.0	"	33.3		93.8	66.4-125	2.20	11.3		
Ethylbenzene	33.5	1.0	"	33.3		100	70-130	3.40	20		
m,p-Xylene	74.8	2.0	"	66.7		112	70-130	2.72	20		
o-Xylene	31.2	1.0	"	33.3		93.6	70-130	2.47	20		
Surrogate: 1,2-Dichloroethane-d4	12.1		"	13.3		90.6	70.4-127				
Surrogate: Toluene-d8	13.0		"	13.3		97.1	85.7-111				
Surrogate: 4-Bromofluorobenzene	11.9		"	13.3		89.3	83.9-116				

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
Project Manager: Brian Dodek

Reported:
03/24/10 17:54

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit		

Batch 0032201 - EPA 5030 Water MS

Matrix Spike (0032201-MS1)	Source: R003123-01			Prepared: 03/22/10		Analyzed: 03/23/10				
Benzene	28.9	1.0	ug/l	33.3	ND	86.8	57.4-127	1.41	19.3	
Toluene	29.5	1.0	"	33.3	ND	88.5	60.1-123	2.15	18.7	
Ethylbenzene	31.3	1.0	"	33.3	ND	93.8	70-130	4.21	20	
m,p-Xylene	69.8	2.0	"	66.7	ND	105	70-130	3.96	20	
o-Xylene	29.5	1.0	"	33.3	ND	88.4	70-130	3.49	20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>12.0</i>		<i>"</i>	<i>13.3</i>		<i>90.2</i>	<i>70.4-127</i>			
<i>Surrogate: Toluene-d8</i>	<i>12.7</i>		<i>"</i>	<i>13.3</i>		<i>95.1</i>	<i>85.7-111</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>11.9</i>		<i>"</i>	<i>13.3</i>		<i>89.5</i>	<i>83.9-116</i>			

Matrix Spike Dup (0032201-MSD1)	Source: R003123-01			Prepared: 03/22/10		Analyzed: 03/23/10				
Benzene	29.3	1.0	ug/l	33.3	ND	88.0	57.4-127	1.41	19.3	
Toluene	30.1	1.0	"	33.3	ND	90.4	60.1-123	2.15	18.7	
Ethylbenzene	30.0	1.0	"	33.3	ND	89.9	70-130	4.21	20	
m,p-Xylene	67.1	2.0	"	66.7	ND	101	70-130	3.96	20	
o-Xylene	28.4	1.0	"	33.3	ND	85.4	70-130	3.49	20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>12.7</i>		<i>"</i>	<i>13.3</i>		<i>95.3</i>	<i>70.4-127</i>			
<i>Surrogate: Toluene-d8</i>	<i>12.7</i>		<i>"</i>	<i>13.3</i>		<i>95.2</i>	<i>85.7-111</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>11.4</i>		<i>"</i>	<i>13.3</i>		<i>85.3</i>	<i>83.9-116</i>			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
Project Manager: Brian Dodek

Reported:
03/24/10 17:54

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

July 06, 2010

Brian Dodek
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Bunyan No.1

Enclosed are the results of analyses for samples received by Summit Scientific on 06/28/10 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'LS' with a long horizontal flourish extending to the right.

Logan Shrewsbury For Ben Shrewsbury
President / Laboratory Director



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC08076
Project Manager: Brian Dodek

Reported:
07/06/10 14:14

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	R006163-01	Water	06/28/10 12:20	06/28/10 17:00
MW03	R006163-02	Water	06/28/10 12:30	06/28/10 17:00

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC08076
 Project Manager: Brian Dodek

Reported:
 07/06/10 14:14

MW01
R006163-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/28/10 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	0070501	07/05/10	07/05/10	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/28/10 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>103 %</i>	<i>70.4-127</i>		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		<i>96.4 %</i>	<i>85.7-111</i>		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>99.5 %</i>	<i>83.9-116</i>		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC08076
 Project Manager: Brian Dodek

Reported:
 07/06/10 14:14

MW03
R006163-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/28/10 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	83	1.0	ug/l	1	0070501	07/05/10	07/05/10	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	14	1.0	"	"	"	"	"	"	
Xylenes (total)	140	1.0	"	"	"	"	"	"	

Date Sampled: **06/28/10 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		105 %	70.4-127		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.6 %	85.7-111		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		98.0 %	83.9-116		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC08076
Project Manager: Brian Dodek

Reported:
07/06/10 14:14

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 0070501 - EPA 5030 Water MS

Blank (0070501-BLK1)

Prepared & Analyzed: 07/05/10

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	13.3		"	13.3	99.8	70.4-127				
Surrogate: Toluene-d8	12.8		"	13.3	96.2	85.7-111				
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3	99.3	83.9-116				

LCS (0070501-BS1)

Prepared & Analyzed: 07/05/10

Benzene	29.4	1.0	ug/l	33.3	88.1	64.2-127			10.9	
Toluene	28.3	1.0	"	33.3	85.0	66.4-125			11.3	
Ethylbenzene	31.1	1.0	"	33.3	93.4	70-130			20	
m,p-Xylene	59.0	2.0	"	66.7	88.5	70-130			20	
o-Xylene	26.8	1.0	"	33.3	80.3	70-130			20	
Surrogate: 1,2-Dichloroethane-d4	14.0		"	13.3	105	70.4-127				
Surrogate: Toluene-d8	13.2		"	13.3	98.9	85.7-111				
Surrogate: 4-Bromofluorobenzene	13.1		"	13.3	98.6	83.9-116				

LCS Dup (0070501-BSD1)

Prepared & Analyzed: 07/05/10

Benzene	29.4	1.0	ug/l	33.3	88.1	64.2-127	0.00		10.9	
Toluene	28.6	1.0	"	33.3	85.8	66.4-125	0.983		11.3	
Ethylbenzene	31.7	1.0	"	33.3	95.1	70-130	1.81		20	
m,p-Xylene	60.5	2.0	"	66.7	90.7	70-130	2.49		20	
o-Xylene	27.5	1.0	"	33.3	82.4	70-130	2.58		20	
Surrogate: 1,2-Dichloroethane-d4	13.8		"	13.3	104	70.4-127				
Surrogate: Toluene-d8	13.2		"	13.3	98.9	85.7-111				
Surrogate: 4-Bromofluorobenzene	13.0		"	13.3	97.5	83.9-116				

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC08076
Project Manager: Brian Dodek

Reported:
07/06/10 14:14

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 0070501 - EPA 5030 Water MS

Matrix Spike (0070501-MS1)	Source: R006162-03			Prepared & Analyzed: 07/05/10						
Benzene	28.4	1.0	ug/l	33.3	ND	85.2	57.4-127		19.3	
Toluene	27.5	1.0	"	33.3	ND	82.6	60.1-123		18.7	
Ethylbenzene	30.1	1.0	"	33.3	ND	90.3	70-130		20	
m,p-Xylene	56.8	2.0	"	66.7	ND	85.2	70-130		20	
o-Xylene	26.0	1.0	"	33.3	ND	78.0	70-130		20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>14.8</i>		<i>"</i>	<i>13.3</i>		<i>111</i>	<i>70.4-127</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.6</i>		<i>"</i>	<i>13.3</i>		<i>102</i>	<i>85.7-111</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.1</i>		<i>"</i>	<i>13.3</i>		<i>98.5</i>	<i>83.9-116</i>			

Matrix Spike Dup (0070501-MSD1)	Source: R006162-03			Prepared & Analyzed: 07/05/10						
Benzene	29.0	1.0	ug/l	33.3	ND	87.1	57.4-127	2.19	19.3	
Toluene	28.4	1.0	"	33.3	ND	85.1	60.1-123	2.93	18.7	
Ethylbenzene	31.3	1.0	"	33.3	ND	94.0	70-130	4.07	20	
m,p-Xylene	59.2	2.0	"	66.7	ND	88.8	70-130	4.15	20	
o-Xylene	26.9	1.0	"	33.3	ND	80.8	70-130	3.59	20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>14.4</i>		<i>"</i>	<i>13.3</i>		<i>108</i>	<i>70.4-127</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.3</i>		<i>"</i>	<i>13.3</i>		<i>99.8</i>	<i>85.7-111</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.1</i>		<i>"</i>	<i>13.3</i>		<i>98.1</i>	<i>83.9-116</i>			

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC08076
Project Manager: Brian Dodek

Reported:
07/06/10 14:14

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

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Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

September 22, 2010

Brian Dodek
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Bunyan No.1

Enclosed are the results of analyses for samples received by Summit Scientific on 09/16/10 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'LS' with a long horizontal flourish extending to the right.

Logan Shrewsbury For Ben Shrewsbury
President / Laboratory Director



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08026
Project Manager: Brian Dodek

Reported:
09/22/10 14:04

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	R009145-01	Water	09/16/10 12:50	09/16/10 17:00
MW02	R009145-02	Water	09/16/10 12:55	09/16/10 17:00
MW03	R009145-03	Water	09/16/10 13:00	09/16/10 17:00
MW04	R009145-04	Water	09/16/10 13:05	09/16/10 17:00

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08026
Project Manager: Brian Dodek

Reported:
09/22/10 14:04

MW01
R009145-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/16/10 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	0092007	09/20/10	09/21/10	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **09/16/10 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>102 %</i>	<i>57.9-139</i>		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		<i>99.3 %</i>	<i>83.1-115</i>		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>101 %</i>	<i>80.8-120</i>		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08026
 Project Manager: Brian Dodek

Reported:
 09/22/10 14:04

MW02
R009145-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/16/10 12:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	0092007	09/20/10	09/21/10	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **09/16/10 12:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>102 %</i>	<i>57.9-139</i>		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		<i>100 %</i>	<i>83.1-115</i>		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>104 %</i>	<i>80.8-120</i>		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08026
 Project Manager: Brian Dodek

Reported:
 09/22/10 14:04

MW03
R009145-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/16/10 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	53	1.0	ug/l	1	0092007	09/20/10	09/21/10	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	43	1.0	"	"	"	"	"	"	
Xylenes (total)	19	1.0	"	"	"	"	"	"	

Date Sampled: **09/16/10 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		112 %	57.9-139		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		105 %	83.1-115		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		98.7 %	80.8-120		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08026
 Project Manager: Brian Dodek

Reported:
 09/22/10 14:04

MW04
R009145-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/16/10 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	0092007	09/20/10	09/21/10	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **09/16/10 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>106 %</i>	<i>57.9-139</i>		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		<i>101 %</i>	<i>83.1-115</i>		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>102 %</i>	<i>80.8-120</i>		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08026
Project Manager: Brian Dodek

Reported:
09/22/10 14:04

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike Level	Source		%REC		RPD		Notes
	Result	Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 0092007 - EPA 5030 Water MS

Blank (0092007-BLK1)

Prepared: 09/20/10 Analyzed: 09/21/10

Benzene	ND	1.0	ug/l								
Toluene	ND	1.0	"								
Ethylbenzene	ND	1.0	"								
Xylenes (total)	ND	1.0	"								
Surrogate: 1,2-Dichloroethane-d4	14.4		"	13.3		108	57.9-139				
Surrogate: Toluene-d8	12.3		"	13.3		92.0	83.1-115				
Surrogate: 4-Bromofluorobenzene	13.5		"	13.3		101	80.8-120				

LCS (0092007-BS1)

Prepared: 09/20/10 Analyzed: 09/21/10

Benzene	29.6	1.0	ug/l	33.3		88.8	60.1-131		10.9		
Toluene	26.8	1.0	"	33.3		80.3	65.9-127		11.3		
Ethylbenzene	34.7	1.0	"	33.3		104	65.1-129		20		
m,p-Xylene	63.4	2.0	"	66.7		95.1	66.8-127		20		
o-Xylene	30.1	1.0	"	33.3		90.3	61.2-120		20		
Surrogate: 1,2-Dichloroethane-d4	14.5		"	13.3		109	57.9-139				
Surrogate: Toluene-d8	13.2		"	13.3		99.3	83.1-115				
Surrogate: 4-Bromofluorobenzene	12.9		"	13.3		96.7	80.8-120				

LCS (0092007-BS2)

Prepared: 09/20/10 Analyzed: 09/21/10

Benzene	31.4	1.0	ug/l	33.3		94.1	60.1-131		10.9		
Toluene	28.3	1.0	"	33.3		84.9	65.9-127		11.3		
Ethylbenzene	36.0	1.0	"	33.3		108	65.1-129		20		
m,p-Xylene	66.6	2.0	"	66.7		99.8	66.8-127		20		
o-Xylene	30.5	1.0	"	33.3		91.5	61.2-120		20		
Surrogate: 1,2-Dichloroethane-d4	15.2		"	13.3		114	57.9-139				
Surrogate: Toluene-d8	13.6		"	13.3		102	83.1-115				
Surrogate: 4-Bromofluorobenzene	12.9		"	13.3		96.9	80.8-120				

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08026
Project Manager: Brian Dodek

Reported:
09/22/10 14:04

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 0092007 - EPA 5030 Water MS

LCS Dup (0092007-BSD1)

Prepared: 09/20/10 Analyzed: 09/21/10

Benzene	30.2	1.0	ug/l	33.3		90.5	60.1-131	1.91	10.9	
Toluene	27.1	1.0	"	33.3		81.2	65.9-127	1.04	11.3	
Ethylbenzene	34.8	1.0	"	33.3		104	65.1-129	0.0575	20	
m,p-Xylene	62.9	2.0	"	66.7		94.3	66.8-127	0.792	20	
o-Xylene	29.5	1.0	"	33.3		88.6	61.2-120	1.95	20	
Surrogate: 1,2-Dichloroethane-d4	14.5		"	13.3		109	57.9-139			
Surrogate: Toluene-d8	13.4		"	13.3		100	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.9		"	13.3		96.9	80.8-120			

LCS Dup (0092007-BSD2)

Prepared: 09/20/10 Analyzed: 09/21/10

Benzene	31.4	1.0	ug/l	33.3		94.3	60.1-131	0.127	10.9	
Toluene	28.2	1.0	"	33.3		84.5	65.9-127	0.425	11.3	
Ethylbenzene	36.0	1.0	"	33.3		108	65.1-129	0.0834	20	
m,p-Xylene	66.2	2.0	"	66.7		99.3	66.8-127	0.558	20	
o-Xylene	30.8	1.0	"	33.3		92.5	61.2-120	1.08	20	
Surrogate: 1,2-Dichloroethane-d4	14.0		"	13.3		105	57.9-139			
Surrogate: Toluene-d8	13.7		"	13.3		103	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.7		"	13.3		95.1	80.8-120			

Matrix Spike (0092007-MS1)

Source: R009143-05

Prepared: 09/20/10 Analyzed: 09/21/10

Benzene	250	1.0	ug/l	33.3	222	84.5	52.7-130		19.3	
Toluene	27.5	1.0	"	33.3	ND	82.5	57-127		18.7	
Ethylbenzene	52.6	1.0	"	33.3	12.7	120	59.2-127		20	
m,p-Xylene	64.4	2.0	"	66.7	ND	96.6	53.2-132		20	
o-Xylene	30.8	1.0	"	33.3	ND	92.6	56.3-117		20	
Surrogate: 1,2-Dichloroethane-d4	14.4		"	13.3		108	57.9-139			
Surrogate: Toluene-d8	12.9		"	13.3		97.0	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.7		"	13.3		95.5	80.8-120			

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08026
Project Manager: Brian Dodek

Reported:
09/22/10 14:04

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 0092007 - EPA 5030 Water MS

Matrix Spike (0092007-MS2)	Source: R009143-06			Prepared: 09/20/10		Analyzed: 09/21/10				
Benzene	35.2	1.0	ug/l	33.3	ND	106	52.7-130			19.3
Toluene	27.0	1.0	"	33.3	ND	81.0	57-127			18.7
Ethylbenzene	34.9	1.0	"	33.3	ND	105	59.2-127			20
m,p-Xylene	63.3	2.0	"	66.7	ND	95.0	53.2-132			20
o-Xylene	29.5	1.0	"	33.3	ND	88.5	56.3-117			20
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>14.3</i>		<i>"</i>	<i>13.3</i>		<i>107</i>	<i>57.9-139</i>			
<i>Surrogate: Toluene-d8</i>	<i>12.4</i>		<i>"</i>	<i>13.3</i>		<i>93.2</i>	<i>83.1-115</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>12.3</i>		<i>"</i>	<i>13.3</i>		<i>92.3</i>	<i>80.8-120</i>			

Matrix Spike Dup (0092007-MSD1)	Source: R009143-05			Prepared: 09/20/10		Analyzed: 09/21/10				
Benzene	264	1.0	ug/l	33.3	222	128	52.7-130	5.61		19.3
Toluene	28.8	1.0	"	33.3	ND	86.3	57-127	4.59		18.7
Ethylbenzene	52.6	1.0	"	33.3	12.7	120	59.2-127	0.0760		20
m,p-Xylene	65.8	2.0	"	66.7	ND	98.7	53.2-132	2.17		20
o-Xylene	31.2	1.0	"	33.3	ND	93.5	56.3-117	1.06		20
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>14.6</i>		<i>"</i>	<i>13.3</i>		<i>109</i>	<i>57.9-139</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.0</i>		<i>"</i>	<i>13.3</i>		<i>97.4</i>	<i>83.1-115</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>12.7</i>		<i>"</i>	<i>13.3</i>		<i>95.3</i>	<i>80.8-120</i>			

Matrix Spike Dup (0092007-MSD2)	Source: R009143-06			Prepared: 09/20/10		Analyzed: 09/21/10				
Benzene	36.8	1.0	ug/l	33.3	ND	110	52.7-130	4.50		19.3
Toluene	27.0	1.0	"	33.3	ND	81.1	57-127	0.185		18.7
Ethylbenzene	34.5	1.0	"	33.3	ND	103	59.2-127	1.24		20
m,p-Xylene	60.8	2.0	"	66.7	ND	91.2	53.2-132	4.06		20
o-Xylene	28.8	1.0	"	33.3	ND	86.6	56.3-117	2.19		20
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>14.2</i>		<i>"</i>	<i>13.3</i>		<i>107</i>	<i>57.9-139</i>			
<i>Surrogate: Toluene-d8</i>	<i>12.6</i>		<i>"</i>	<i>13.3</i>		<i>94.9</i>	<i>83.1-115</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.0</i>		<i>"</i>	<i>13.3</i>		<i>97.3</i>	<i>80.8-120</i>			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08026
Project Manager: Brian Dodek

Reported:
09/22/10 14:04

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

December 13, 2010

Brian Dodek
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Bunyan No.1

Enclosed are the results of analyses for samples received by Summit Scientific on 12/08/10 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'PS', with a long horizontal flourish extending to the right.

Paul Shrewsbury For Ben Shrewsbury
President / Laboratory Director



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: Brian Dodek

Reported:
12/13/10 16:17

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	R012057-01	Water	12/08/10 11:40	12/08/10 17:00
MW02	R012057-02	Water	12/08/10 11:45	12/08/10 17:00
MW03	R012057-03	Water	12/08/10 11:50	12/08/10 17:00
MW04	R012057-04	Water	12/08/10 11:55	12/08/10 17:00

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
 Project Manager: Brian Dodek

Reported:
 12/13/10 16:17

MW01
R012057-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/08/10 11:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	0121102	12/11/10	12/12/10	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 12/08/10 11:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		109 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		96.9 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.9 %	80.8-120		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
 Project Manager: Brian Dodek

Reported:
 12/13/10 16:17

MW02
R012057-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/08/10 11:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	0121102	12/11/10	12/12/10	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 12/08/10 11:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		109 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		96.8 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.2 %	80.8-120		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
 Project Manager: Brian Dodek

Reported:
 12/13/10 16:17

MW03
R012057-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/08/10 11:50

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	22	1.0	ug/l	1	0121102	12/11/10	12/12/10	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	14	1.0	"	"	"	"	"	"	
Xylenes (total)	33	1.0	"	"	"	"	"	"	

Date Sampled: 12/08/10 11:50

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		115 %	57.9-139		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.7 %	83.1-115		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		94.7 %	80.8-120		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
 Project Manager: Brian Dodek

Reported:
 12/13/10 16:17

MW04
R012057-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/08/10 11:55

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	3.8	1.0	ug/l	1	0121102	12/11/10	12/12/10	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 12/08/10 11:55

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		109 %	57.9-139		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		91.8 %	83.1-115		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		94.1 %	80.8-120		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: Brian Dodek

Reported:
12/13/10 16:17

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike Level	Source		%REC		RPD		Notes
	Result	Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 0121102 - EPA 5030 Water MS

Blank (0121102-BLK1)

Prepared: 12/11/10 Analyzed: 12/12/10

Benzene	ND	1.0	ug/l								
Toluene	ND	1.0	"								
Ethylbenzene	ND	1.0	"								
Xylenes (total)	ND	1.0	"								
Surrogate: 1,2-Dichloroethane-d4	14.4		"	13.3	108	57.9-139					
Surrogate: Toluene-d8	13.0		"	13.3	97.6	83.1-115					
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3	99.0	80.8-120					

LCS (0121102-BS1)

Prepared: 12/11/10 Analyzed: 12/12/10

Benzene	28.6	1.0	ug/l	33.3	85.9	60.1-131	4.30	10.9			
Toluene	28.3	1.0	"	33.3	84.8	65.9-127	6.04	11.3			
Ethylbenzene	30.6	1.0	"	33.3	91.7	65.1-129	5.25	20			
m,p-Xylene	60.2	2.0	"	66.7	90.3	66.8-127	4.78	20			
o-Xylene	29.5	1.0	"	33.3	88.5	61.2-120	9.80	20			
Surrogate: 1,2-Dichloroethane-d4	14.8		"	13.3	111	57.9-139					
Surrogate: Toluene-d8	13.1		"	13.3	98.4	83.1-115					
Surrogate: 4-Bromofluorobenzene	12.4		"	13.3	93.2	80.8-120					

LCS Dup (0121102-BSD1)

Prepared: 12/11/10 Analyzed: 12/12/10

Benzene	29.9	1.0	ug/l	33.3	89.7	60.1-131	4.30	10.9			
Toluene	30.0	1.0	"	33.3	90.1	65.9-127	6.04	11.3			
Ethylbenzene	32.2	1.0	"	33.3	96.7	65.1-129	5.25	20			
m,p-Xylene	63.2	2.0	"	66.7	94.7	66.8-127	4.78	20			
o-Xylene	32.5	1.0	"	33.3	97.6	61.2-120	9.80	20			
Surrogate: 1,2-Dichloroethane-d4	14.8		"	13.3	111	57.9-139					
Surrogate: Toluene-d8	12.7		"	13.3	95.6	83.1-115					
Surrogate: 4-Bromofluorobenzene	12.9		"	13.3	96.7	80.8-120					

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: Brian Dodek

Reported:
12/13/10 16:17

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 0121102 - EPA 5030 Water MS

Matrix Spike (0121102-MS1)

Source: R012051-01

Prepared: 12/11/10

Analyzed: 12/12/10

Benzene	29.1	1.0	ug/l	33.3	ND	87.3	52.7-130		19.3	
Toluene	29.8	1.0	"	33.3	ND	89.5	57-127		18.7	
Ethylbenzene	31.2	1.0	"	33.3	ND	93.5	59.2-127		20	
m,p-Xylene	60.2	2.0	"	66.7	ND	90.2	53.2-132		20	
o-Xylene	30.3	1.0	"	33.3	ND	90.8	56.3-117		20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>14.8</i>		<i>"</i>	<i>13.3</i>		<i>111</i>	<i>57.9-139</i>			
<i>Surrogate: Toluene-d8</i>	<i>12.8</i>		<i>"</i>	<i>13.3</i>		<i>96.3</i>	<i>83.1-115</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.1</i>		<i>"</i>	<i>13.3</i>		<i>98.3</i>	<i>80.8-120</i>			

Matrix Spike Dup (0121102-MSD1)

Source: R012051-01

Prepared: 12/11/10

Analyzed: 12/12/10

Benzene	30.0	1.0	ug/l	33.3	ND	90.0	52.7-130	3.08	19.3	
Toluene	29.6	1.0	"	33.3	ND	88.8	57-127	0.774	18.7	
Ethylbenzene	32.0	1.0	"	33.3	ND	96.0	59.2-127	2.69	20	
m,p-Xylene	61.4	2.0	"	66.7	ND	92.1	53.2-132	2.01	20	
o-Xylene	31.8	1.0	"	33.3	ND	95.6	56.3-117	5.09	20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>15.3</i>		<i>"</i>	<i>13.3</i>		<i>115</i>	<i>57.9-139</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.0</i>		<i>"</i>	<i>13.3</i>		<i>97.6</i>	<i>83.1-115</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.0</i>		<i>"</i>	<i>13.3</i>		<i>97.7</i>	<i>80.8-120</i>			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: Brian Dodek

Reported:
12/13/10 16:17

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

March 11, 2011

Brian Dodek
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Bunyan No.1

Enclosed are the results of analyses for samples received by Summit Scientific on 03/03/11 16:55. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'PS', with a long horizontal flourish extending to the right.

Paul Shrewsbury For Ben Shrewsbury
President / Laboratory Director



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC00876.01
Project Manager: Brian Dodek

Reported:
03/11/11 16:18

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	R103030-01	Water	03/03/11 13:40	03/03/11 16:55
MW02	R103030-02	Water	03/03/11 13:45	03/03/11 16:55
MW03	R103030-03	Water	03/03/11 13:50	03/03/11 16:55

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC00876.01
 Project Manager: Brian Dodek

Reported:
 03/11/11 16:18

MW01
R103030-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/03/11 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1030406	03/04/11	03/10/11	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/03/11 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>101 %</i>	<i>57.9-139</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: Toluene-d8</i>		<i>102 %</i>	<i>83.1-115</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>93.7 %</i>	<i>80.8-120</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC00876.01
 Project Manager: Brian Dodek

Reported:
 03/11/11 16:18

MW02
R103030-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/03/11 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1030406	03/04/11	03/10/11	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/03/11 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		101 %	57.9-139		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		100 %	83.1-115		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		85.7 %	80.8-120		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC00876.01
 Project Manager: Brian Dodek

Reported:
 03/11/11 16:18

MW03
R103030-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/03/11 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	170	1.0	ug/l	1	1030406	03/04/11	03/10/11	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	94	1.0	"	"	"	"	"	"	
Xylenes (total)	300	1.0	"	"	"	"	"	"	

Date Sampled: **03/03/11 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	57.9-139		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		105 %	83.1-115		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		102 %	80.8-120		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC00876.01
Project Manager: Brian Dodek

Reported:
03/11/11 16:18

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike Level	Source		%REC		RPD		Notes
	Result	Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 1030406 - EPA 5030 Water MS

Blank (1030406-BLK1)

Prepared: 03/04/11 Analyzed: 03/10/11

Benzene	ND	1.0	ug/l								
Toluene	ND	1.0	"								
Ethylbenzene	ND	1.0	"								
Xylenes (total)	ND	1.0	"								
Surrogate: 1,2-Dichloroethane-d4	13.7		"	13.3	102	57.9-139					
Surrogate: Toluene-d8	13.3		"	13.3	99.8	83.1-115					
Surrogate: 4-Bromofluorobenzene	12.9		"	13.3	96.6	80.8-120					

LCS (1030406-BS1)

Prepared: 03/04/11 Analyzed: 03/10/11

Benzene	38.6	1.0	ug/l	33.3	116	60.1-131		10.9
Toluene	37.9	1.0	"	33.3	114	65.9-127		11.3
Ethylbenzene	37.0	1.0	"	33.3	111	65.1-129		20
m,p-Xylene	76.8	2.0	"	66.7	115	66.8-127		20
o-Xylene	36.6	1.0	"	33.3	110	61.2-120		20
Surrogate: 1,2-Dichloroethane-d4	13.6		"	13.3	102	57.9-139		
Surrogate: Toluene-d8	13.9		"	13.3	104	83.1-115		
Surrogate: 4-Bromofluorobenzene	12.6		"	13.3	94.9	80.8-120		

LCS Dup (1030406-BSD1)

Prepared: 03/04/11 Analyzed: 03/10/11

Benzene	32.4	1.0	ug/l	33.3	97.1	60.1-131	17.5	10.9
Toluene	31.4	1.0	"	33.3	94.2	65.9-127	18.7	11.3
Ethylbenzene	33.4	1.0	"	33.3	100	65.1-129	9.94	20
m,p-Xylene	66.7	2.0	"	66.7	100	66.8-127	14.1	20
o-Xylene	33.7	1.0	"	33.3	101	61.2-120	8.33	20
Surrogate: 1,2-Dichloroethane-d4	13.8		"	13.3	103	57.9-139		
Surrogate: Toluene-d8	13.9		"	13.3	104	83.1-115		
Surrogate: 4-Bromofluorobenzene	13.8		"	13.3	104	80.8-120		

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC00876.01
Project Manager: Brian Dodek

Reported:
03/11/11 16:18

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1030406 - EPA 5030 Water MS

Matrix Spike (1030406-MS1)	Source: R103030-01			Prepared: 03/04/11	Analyzed: 03/10/11				
Benzene	34.8	1.0	ug/l	33.3	ND	104	52.7-130		19.3
Toluene	35.6	1.0	"	33.3	ND	107	57-127		18.7
Ethylbenzene	36.0	1.0	"	33.3	ND	108	59.2-127		20
m,p-Xylene	74.6	2.0	"	66.7	1.24	110	53.2-132		20
o-Xylene	36.0	1.0	"	33.3	ND	108	56.3-117		20
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>13.5</i>		<i>"</i>	<i>13.3</i>		<i>101</i>	<i>57.9-139</i>		
<i>Surrogate: Toluene-d8</i>	<i>13.8</i>		<i>"</i>	<i>13.3</i>		<i>103</i>	<i>83.1-115</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.0</i>		<i>"</i>	<i>13.3</i>		<i>97.1</i>	<i>80.8-120</i>		

Matrix Spike Dup (1030406-MSD1)	Source: R103030-01			Prepared: 03/04/11	Analyzed: 03/10/11				
Benzene	34.4	1.0	ug/l	33.3	ND	103	52.7-130	1.21	19.3
Toluene	34.3	1.0	"	33.3	ND	103	57-127	3.60	18.7
Ethylbenzene	34.8	1.0	"	33.3	ND	104	59.2-127	3.47	20
m,p-Xylene	70.7	2.0	"	66.7	1.24	104	53.2-132	5.42	20
o-Xylene	34.6	1.0	"	33.3	ND	104	56.3-117	3.80	20
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>14.4</i>		<i>"</i>	<i>13.3</i>		<i>108</i>	<i>57.9-139</i>		
<i>Surrogate: Toluene-d8</i>	<i>13.7</i>		<i>"</i>	<i>13.3</i>		<i>103</i>	<i>83.1-115</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>12.4</i>		<i>"</i>	<i>13.3</i>		<i>92.7</i>	<i>80.8-120</i>		

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC00876.01
Project Manager: Brian Dodek

Reported:
03/11/11 16:18

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

April 23, 2011

Brian Dodek
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Bunyan No.1

Enclosed are the results of analyses for samples received by Summit Scientific on 04/19/11 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'PS', with a long horizontal flourish extending to the right.

Paul Shrewsbury For Ben Shrewsbury
President / Laboratory Director



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 00876
Project Manager: Brian Dodek

Reported:
04/23/11 17:23

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW06	R104111-01	Water	04/19/11 10:00	04/19/11 17:00
MW05R	R104111-02	Water	04/19/11 10:20	04/19/11 17:00

Summit Scientific

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LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 00876
 Project Manager: Brian Dodek

Reported:
 04/23/11 17:23

MW06
R104111-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/19/11 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1042103	04/21/11	04/22/11	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **04/19/11 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		94.4 %	57.9-139		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		100 %	83.1-115		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		95.9 %	80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 00876
 Project Manager: Brian Dodek

Reported:
 04/23/11 17:23

MW05R
R104111-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/19/11 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1042103	04/21/11	04/22/11	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **04/19/11 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.0 %	57.9-139		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		100 %	83.1-115		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		95.7 %	80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 00876
Project Manager: Brian Dodek

Reported:
04/23/11 17:23

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1042103 - EPA 5030 Water MS

Blank (1042103-BLK1)

Prepared & Analyzed: 04/21/11

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>14.5</i>		<i>"</i>	<i>13.3</i>		<i>109</i>	<i>57.9-139</i>			
<i>Surrogate: Toluene-d8</i>	<i>12.8</i>		<i>"</i>	<i>13.3</i>		<i>96.3</i>	<i>83.1-115</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>12.1</i>		<i>"</i>	<i>13.3</i>		<i>90.5</i>	<i>80.8-120</i>			

LCS (1042103-BS1)

Prepared: 04/21/11 Analyzed: 04/22/11

Benzene	28.7	1.0	ug/l	33.3		86.2	60.1-131		10.9	
Toluene	28.9	1.0	"	33.3		86.7	65.9-127		11.3	
Ethylbenzene	30.2	1.0	"	33.3		90.7	65.1-129		20	
m,p-Xylene	57.2	2.0	"	66.7		85.8	66.8-127		20	
o-Xylene	29.7	1.0	"	33.3		89.2	61.2-120		20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>13.0</i>		<i>"</i>	<i>13.3</i>		<i>97.1</i>	<i>57.9-139</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.4</i>		<i>"</i>	<i>13.3</i>		<i>100</i>	<i>83.1-115</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>12.4</i>		<i>"</i>	<i>13.3</i>		<i>93.3</i>	<i>80.8-120</i>			

Matrix Spike (1042103-MS1)

Source: R104095-01

Prepared: 04/21/11 Analyzed: 04/22/11

Benzene	29.8	1.0	ug/l	33.3	ND	89.3	52.7-130		19.3	
Toluene	30.0	1.0	"	33.3	ND	90.1	57-127		18.7	
Ethylbenzene	31.4	1.0	"	33.3	ND	94.2	59.2-127		20	
m,p-Xylene	59.6	2.0	"	66.7	ND	89.5	53.2-132		20	
o-Xylene	31.5	1.0	"	33.3	ND	94.4	56.3-117		20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>13.1</i>		<i>"</i>	<i>13.3</i>		<i>98.2</i>	<i>57.9-139</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.5</i>		<i>"</i>	<i>13.3</i>		<i>101</i>	<i>83.1-115</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>12.4</i>		<i>"</i>	<i>13.3</i>		<i>93.3</i>	<i>80.8-120</i>			

Summit Scientific

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LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 00876
 Project Manager: Brian Dodek

Reported:
 04/23/11 17:23

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1042103 - EPA 5030 Water MS

Matrix Spike Dup (1042103-MSD1)	Source: R104095-01			Prepared: 04/21/11	Analyzed: 04/22/11					
Benzene	29.4	1.0	ug/l	33.3	ND	88.3	52.7-130	1.08	19.3	
Toluene	29.7	1.0	"	33.3	ND	89.1	57-127	1.10	18.7	
Ethylbenzene	31.9	1.0	"	33.3	ND	95.6	59.2-127	1.55	20	
m,p-Xylene	60.0	2.0	"	66.7	ND	90.0	53.2-132	0.618	20	
o-Xylene	31.5	1.0	"	33.3	ND	94.5	56.3-117	0.127	20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>13.1</i>		<i>"</i>	<i>13.3</i>		<i>98.0</i>	<i>57.9-139</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.2</i>		<i>"</i>	<i>13.3</i>		<i>98.9</i>	<i>83.1-115</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>12.4</i>		<i>"</i>	<i>13.3</i>		<i>92.9</i>	<i>80.8-120</i>			

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 00876
Project Manager: Brian Dodek

Reported:
04/23/11 17:23

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

June 15, 2011

Brian Dodek
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Bunyan No.1

Enclosed are the results of analyses for samples received by Summit Scientific on 06/07/11 16:55. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'LS' with a long, sweeping horizontal line extending to the right.

Logan Shrewsbury For Ben Shrewsbury
President / Laboratory Director



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC00876.01
Project Manager: Brian Dodek

Reported:
06/15/11 18:30

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	R106068-01	Water	06/07/11 12:15	06/07/11 16:55
MW02	R106068-02	Water	06/07/11 12:20	06/07/11 16:55
MW03	R106068-03	Water	06/07/11 12:25	06/07/11 16:55
MW04	R106068-04	Water	06/07/11 12:30	06/07/11 16:55
MW05	R106068-05	Water	06/07/11 12:35	06/07/11 16:55
MW06	R106068-06	Water	06/07/11 12:40	06/07/11 16:55

Summit Scientific

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LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC00876.01
 Project Manager: Brian Dodek

Reported:
 06/15/11 18:30

MW01
R106068-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/07/11 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1061302	06/13/11	06/14/11	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/07/11 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.4 %	57.9-139		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		97.5 %	83.1-115		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		94.6 %	80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC00876.01
 Project Manager: Brian Dodek

Reported:
 06/15/11 18:30

MW02
R106068-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/07/11 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1061302	06/13/11	06/14/11	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/07/11 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		100 %	57.9-139		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		89.0 %	83.1-115		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		97.3 %	80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC00876.01
 Project Manager: Brian Dodek

Reported:
 06/15/11 18:30

MW03
R106068-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/07/11 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	180	1.0	ug/l	1	1061302	06/13/11	06/14/11	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	130	1.0	"	"	"	"	"	"	
Xylenes (total)	420	1.0	"	"	"	"	"	"	

Date Sampled: **06/07/11 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.4 %	57.9-139		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		89.4 %	83.1-115		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		102 %	80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC00876.01
 Project Manager: Brian Dodek

Reported:
 06/15/11 18:30

MW04
R106068-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/07/11 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1061302	06/13/11	06/14/11	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/07/11 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		104 %	57.9-139		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.9 %	83.1-115		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		96.2 %	80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC00876.01
 Project Manager: Brian Dodek

Reported:
 06/15/11 18:30

MW05
R106068-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/07/11 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1061302	06/13/11	06/15/11	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/07/11 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.5 %	57.9-139		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		96.9 %	83.1-115		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		96.5 %	80.8-120		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC00876.01
 Project Manager: Brian Dodek

Reported:
 06/15/11 18:30

MW06
R106068-06 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/07/11 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1061302	06/13/11	06/15/11	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/07/11 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		100 %	57.9-139		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		92.0 %	83.1-115		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		95.7 %	80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC00876.01
Project Manager: Brian Dodek

Reported:
06/15/11 18:30

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1061302 - EPA 5030 Water MS

Blank (1061302-BLK1)

Prepared: 06/13/11 Analyzed: 06/14/11

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	13.3		"	13.3	99.5	57.9-139				
Surrogate: Toluene-d8	11.8		"	13.3	88.3	83.1-115				
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3	101	80.8-120				

LCS (1061302-BS1)

Prepared: 06/13/11 Analyzed: 06/14/11

Benzene	31.8	1.0	ug/l	33.3	95.4	60.1-131		10.9		
Toluene	29.3	1.0	"	33.3	88.0	65.9-127		11.3		
Ethylbenzene	37.4	1.0	"	33.3	112	65.1-129		20		
m,p-Xylene	72.1	2.0	"	66.7	108	66.8-127		20		
o-Xylene	36.6	1.0	"	33.3	110	61.2-120		20		
Surrogate: 1,2-Dichloroethane-d4	13.2		"	13.3	99.2	57.9-139				
Surrogate: Toluene-d8	12.0		"	13.3	90.1	83.1-115				
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3	96.3	80.8-120				

LCS Dup (1061302-BSD1)

Prepared: 06/13/11 Analyzed: 06/14/11

Benzene	30.6	1.0	ug/l	33.3	91.9	60.1-131	3.75	10.9		
Toluene	32.6	1.0	"	33.3	97.9	65.9-127	10.6	11.3		
Ethylbenzene	35.8	1.0	"	33.3	107	65.1-129	4.42	20		
m,p-Xylene	69.3	2.0	"	66.7	104	66.8-127	3.96	20		
o-Xylene	35.1	1.0	"	33.3	105	61.2-120	4.19	20		
Surrogate: 1,2-Dichloroethane-d4	13.6		"	13.3	102	57.9-139				
Surrogate: Toluene-d8	13.9		"	13.3	105	83.1-115				
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3	96.1	80.8-120				

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC00876.01
Project Manager: Brian Dodek

Reported:
06/15/11 18:30

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit		

Batch 1061302 - EPA 5030 Water MS

Matrix Spike (1061302-MS1)	Source: R106068-01			Prepared: 06/13/11		Analyzed: 06/14/11					
Benzene	31.1	1.0	ug/l	33.3	ND	93.4	52.7-130			19.3	
Toluene	30.9	1.0	"	33.3	ND	92.7	57-127			18.7	
Ethylbenzene	36.3	1.0	"	33.3	ND	109	59.2-127			20	
m,p-Xylene	69.3	2.0	"	66.7	ND	104	53.2-132			20	
o-Xylene	35.7	1.0	"	33.3	ND	107	56.3-117			20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>13.5</i>		<i>"</i>	<i>13.3</i>		<i>101</i>	<i>57.9-139</i>				
<i>Surrogate: Toluene-d8</i>	<i>12.3</i>		<i>"</i>	<i>13.3</i>		<i>92.2</i>	<i>83.1-115</i>				
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>12.7</i>		<i>"</i>	<i>13.3</i>		<i>95.0</i>	<i>80.8-120</i>				

Matrix Spike Dup (1061302-MSD1)	Source: R106068-01			Prepared: 06/13/11		Analyzed: 06/14/11					
Benzene	31.3	1.0	ug/l	33.3	ND	94.0	52.7-130	0.672		19.3	
Toluene	28.7	1.0	"	33.3	ND	86.2	57-127	7.28		18.7	
Ethylbenzene	37.6	1.0	"	33.3	ND	113	59.2-127	3.52		20	
m,p-Xylene	72.3	2.0	"	66.7	ND	108	53.2-132	4.25		20	
o-Xylene	36.8	1.0	"	33.3	ND	110	56.3-117	3.12		20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>13.5</i>		<i>"</i>	<i>13.3</i>		<i>101</i>	<i>57.9-139</i>				
<i>Surrogate: Toluene-d8</i>	<i>12.0</i>		<i>"</i>	<i>13.3</i>		<i>89.9</i>	<i>83.1-115</i>				
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>12.8</i>		<i>"</i>	<i>13.3</i>		<i>96.1</i>	<i>80.8-120</i>				

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC00876.01
Project Manager: Brian Dodek

Reported:
06/15/11 18:30

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

June 25, 2013

Brandon Bruns
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203
RE: Bunyan #1

Enclosed are the results of analyses for samples received by Summit Scientific on 06/19/13 18:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Joseph J Egry IV
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written approval of Summit Scientific. Test results relate only to samples analyzed.

Summit Scientific is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
06/25/13 14:47

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW02	R306140-01	Water	06/19/13 16:10	06/19/13 18:15
MW03	R306140-02	Water	06/19/13 16:00	06/19/13 18:15
MW05	R306140-03	Water	06/19/13 15:55	06/19/13 18:15
MW06	R306140-04	Water	06/19/13 15:50	06/19/13 18:15

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Bruns

Reported:
 06/25/13 14:47

MW02
R306140-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/19/13 16:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	3062008	06/20/13	06/24/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/19/13 16:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		107 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		61.7 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.6 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 06/25/13 14:47

MW03
R306140-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/19/13 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	30	1.0	ug/l	1	3062008	06/20/13	06/24/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	16	1.0	"	"	"	"	"	"	
Xylenes (total)	94	1.0	"	"	"	"	"	"	

Date Sampled: **06/19/13 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		117 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		99.8 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 06/25/13 14:47

MW05
R306140-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/19/13 15:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	3062008	06/20/13	06/24/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/19/13 15:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		98.1 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.2 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 06/25/13 14:47

MW06
R306140-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/19/13 15:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	1.3	1.0	ug/l	1	3062008	06/20/13	06/24/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/19/13 15:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		99.2 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		103 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
06/25/13 14:47

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 3062008 - EPA 5030 Water MS

Blank (3062008-BLK1)

Prepared & Analyzed: 06/21/13

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>12.9</i>		<i>"</i>	<i>13.2</i>		<i>97.7</i>	<i>37-154</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.3</i>		<i>"</i>	<i>13.3</i>		<i>99.5</i>	<i>45-149</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.0</i>		<i>"</i>	<i>13.3</i>		<i>97.7</i>	<i>45-146</i>			

LCS (3062008-BS1)

Prepared & Analyzed: 06/21/13

Benzene	24.7	1.0	ug/l	33.3	ND	74.0	51-132			
Toluene	24.9	1.0	"	33.3	4.61	74.7	51-138			
Ethylbenzene	26.7	1.0	"	33.3	ND	80.1	58-146			
m,p-Xylene	53.7	2.0	"	66.7	2.49	80.6	57-144			
o-Xylene	26.1	1.0	"	33.3	ND	78.4	53-146			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>13.2</i>		<i>"</i>	<i>13.2</i>		<i>99.7</i>	<i>37-154</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.0</i>		<i>"</i>	<i>13.3</i>		<i>97.9</i>	<i>45-149</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.1</i>		<i>"</i>	<i>13.3</i>		<i>98.0</i>	<i>45-146</i>			

Matrix Spike (3062008-MS1)

Source: R306138-06

Prepared & Analyzed: 06/21/13

Benzene	29.7	1.0	ug/l	33.3	ND	89.1	34-141			
Toluene	39.2	1.0	"	33.3	4.61	104	27-151			
Ethylbenzene	30.3	1.0	"	33.3	ND	90.8	29-160			
m,p-Xylene	65.1	2.0	"	66.7	2.49	93.9	20-166			
o-Xylene	30.2	1.0	"	33.3	ND	90.7	33-159			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>12.8</i>		<i>"</i>	<i>13.2</i>		<i>96.7</i>	<i>37-154</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.3</i>		<i>"</i>	<i>13.3</i>		<i>99.9</i>	<i>45-149</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.1</i>		<i>"</i>	<i>13.3</i>		<i>98.0</i>	<i>45-146</i>			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 06/25/13 14:47

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 3062008 - EPA 5030 Water MS

Matrix Spike Dup (3062008-MSD1)	Source: R306138-06			Prepared & Analyzed: 06/21/13						
Benzene	30.4	1.0	ug/l	33.3	ND	91.1	34-141	2.20	32	
Toluene	44.3	1.0	"	33.3	4.61	119	27-151	12.4	25	
Ethylbenzene	30.1	1.0	"	33.3	ND	90.3	29-160	0.530	50	
m,p-Xylene	68.5	2.0	"	66.7	2.49	99.0	20-166	5.09	36	
o-Xylene	30.6	1.0	"	33.3	ND	91.9	33-159	1.25	26	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>13.4</i>		<i>"</i>	<i>13.2</i>		<i>102</i>	<i>37-154</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.1</i>		<i>"</i>	<i>13.3</i>		<i>98.4</i>	<i>45-149</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.2</i>		<i>"</i>	<i>13.3</i>		<i>98.9</i>	<i>45-146</i>			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
06/25/13 14:47

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

September 30, 2013

Brandon Bruns
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203
RE: Bunyan #1

Enclosed are the results of analyses for samples received by Summit Scientific on 09/24/13 16:50. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Joseph J Egry IV
Laboratory Director

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
09/30/13 15:12

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW03	R309190-01	Water	09/24/13 12:25	09/24/13 16:50
MW05R	R309190-02	Water	09/24/13 12:30	09/24/13 16:50
MW06	R309190-03	Water	09/24/13 12:35	09/24/13 16:50

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 09/30/13 15:12

MW03
R309190-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/24/13 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	26	1.0	ug/l	1	3092622	09/27/13	09/27/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	12	1.0	"	"	"	"	"	"	
Xylenes (total)	36	1.0	"	"	"	"	"	"	

Date Sampled: **09/24/13 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		120 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		100 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		103 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 09/30/13 15:12

MW05R
R309190-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/24/13 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	3092622	09/27/13	09/27/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **09/24/13 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		99.7 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 09/30/13 15:12

MW06
R309190-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/24/13 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	3092622	09/27/13	09/27/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **09/24/13 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		99.4 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
09/30/13 15:12

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 3092622 - EPA 5030 Water MS

Blank (3092622-BLK1)

Prepared & Analyzed: 09/27/13

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>13.7</i>		<i>"</i>	<i>13.2</i>		<i>103</i>	<i>37-154</i>			
<i>Surrogate: Toluene-d8</i>	<i>12.5</i>		<i>"</i>	<i>13.3</i>		<i>93.8</i>	<i>45-149</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.9</i>		<i>"</i>	<i>13.3</i>		<i>104</i>	<i>45-146</i>			

Blank (3092622-BLK2)

Prepared & Analyzed: 09/27/13

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>12.6</i>		<i>"</i>	<i>13.2</i>		<i>95.4</i>	<i>37-154</i>			
<i>Surrogate: Toluene-d8</i>	<i>12.4</i>		<i>"</i>	<i>13.3</i>		<i>93.1</i>	<i>45-149</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>14.2</i>		<i>"</i>	<i>13.3</i>		<i>106</i>	<i>45-146</i>			

LCS (3092622-BS1)

Prepared & Analyzed: 09/27/13

Benzene	29.6	1.0	ug/l	33.3		88.9	51-132			
Toluene	34.8	1.0	"	33.3		104	51-138			
Ethylbenzene	40.0	1.0	"	33.3		120	58-146			
m,p-Xylene	74.7	2.0	"	66.7		112	57-144			
o-Xylene	39.5	1.0	"	33.3		119	53-146			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>14.0</i>		<i>"</i>	<i>13.2</i>		<i>106</i>	<i>37-154</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.5</i>		<i>"</i>	<i>13.3</i>		<i>101</i>	<i>45-149</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.7</i>		<i>"</i>	<i>13.3</i>		<i>103</i>	<i>45-146</i>			

LCS (3092622-BS2)

Prepared & Analyzed: 09/27/13

Benzene	30.3	1.0	ug/l	33.3		91.0	51-132			
Toluene	35.6	1.0	"	33.3		107	51-138			
Ethylbenzene	40.7	1.0	"	33.3		122	58-146			
m,p-Xylene	76.4	2.0	"	66.7		115	57-144			
o-Xylene	40.3	1.0	"	33.3		121	53-146			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>13.9</i>		<i>"</i>	<i>13.2</i>		<i>105</i>	<i>37-154</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.3</i>		<i>"</i>	<i>13.3</i>		<i>100</i>	<i>45-149</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.6</i>		<i>"</i>	<i>13.3</i>		<i>102</i>	<i>45-146</i>			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
09/30/13 15:12

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 3092622 - EPA 5030 Water MS

LCS Dup (3092622-BSD1)

Prepared & Analyzed: 09/27/13

Benzene	30.2	1.0	ug/l	33.3	90.6	51-132	1.87	17	
Toluene	35.6	1.0	"	33.3	107	51-138	2.33	17	
Ethylbenzene	40.9	1.0	"	33.3	123	58-146	2.25	16	
m,p-Xylene	76.3	2.0	"	66.7	114	57-144	2.20	16	
o-Xylene	39.8	1.0	"	33.3	119	53-146	0.706	15	
Surrogate: 1,2-Dichloroethane-d4	14.1		"	13.2	107	37-154			
Surrogate: Toluene-d8	13.6		"	13.3	102	45-149			
Surrogate: 4-Bromofluorobenzene	13.5		"	13.3	101	45-146			

LCS Dup (3092622-BSD2)

Prepared & Analyzed: 09/27/13

Benzene	30.6	1.0	ug/l	33.3	91.7	51-132	0.821	17	
Toluene	35.4	1.0	"	33.3	106	51-138	0.733	17	
Ethylbenzene	41.1	1.0	"	33.3	123	58-146	1.05	16	
m,p-Xylene	77.1	2.0	"	66.7	116	57-144	0.847	16	
o-Xylene	40.4	1.0	"	33.3	121	53-146	0.446	15	
Surrogate: 1,2-Dichloroethane-d4	14.1		"	13.2	107	37-154			
Surrogate: Toluene-d8	13.5		"	13.3	101	45-149			
Surrogate: 4-Bromofluorobenzene	13.8		"	13.3	104	45-146			

Matrix Spike (3092622-MS1)

Source: R309190-01

Prepared & Analyzed: 09/27/13

Benzene	55.0	1.0	ug/l	33.3	26.0	87.0	34-141		
Toluene	35.7	1.0	"	33.3	ND	107	27-151		
Ethylbenzene	51.8	1.0	"	33.3	11.8	120	29-160		
m,p-Xylene	99.2	2.0	"	66.7	24.7	112	20-166		
o-Xylene	51.0	1.0	"	33.3	11.4	119	33-159		
Surrogate: 1,2-Dichloroethane-d4	15.7		"	13.2		118	37-154		
Surrogate: Toluene-d8	13.5		"	13.3		101	45-149		
Surrogate: 4-Bromofluorobenzene	13.6		"	13.3		102	45-146		

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
09/30/13 15:12

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit		

Batch 3092622 - EPA 5030 Water MS

Matrix Spike (3092622-MS2)	Source: R309190-03			Prepared & Analyzed: 09/27/13								
Benzene	30.5	1.0	ug/l	33.3	ND	91.4	34-141					
Toluene	35.5	1.0	"	33.3	ND	107	27-151					
Ethylbenzene	41.0	1.0	"	33.3	ND	123	29-160					
m,p-Xylene	76.9	2.0	"	66.7	ND	115	20-166					
o-Xylene	40.4	1.0	"	33.3	ND	121	33-159					
Surrogate: 1,2-Dichloroethane-d4	14.1		"	13.2		107	37-154					
Surrogate: Toluene-d8	13.4		"	13.3		100	45-149					
Surrogate: 4-Bromofluorobenzene	13.7		"	13.3		102	45-146					

Matrix Spike Dup (3092622-MSD1)	Source: R309190-01			Prepared & Analyzed: 09/27/13								
Benzene	57.0	1.0	ug/l	33.3	26.0	93.2	34-141	3.71	32			
Toluene	36.1	1.0	"	33.3	ND	108	27-151	1.20	25			
Ethylbenzene	51.6	1.0	"	33.3	11.8	120	29-160	0.213	50			
m,p-Xylene	99.4	2.0	"	66.7	24.7	112	20-166	0.211	36			
o-Xylene	50.7	1.0	"	33.3	11.4	118	33-159	0.590	26			
Surrogate: 1,2-Dichloroethane-d4	16.2		"	13.2		122	37-154					
Surrogate: Toluene-d8	13.7		"	13.3		103	45-149					
Surrogate: 4-Bromofluorobenzene	13.8		"	13.3		103	45-146					

Matrix Spike Dup (3092622-MSD2)	Source: R309190-03			Prepared & Analyzed: 09/27/13								
Benzene	30.6	1.0	ug/l	33.3	ND	91.9	34-141	0.458	32			
Toluene	35.5	1.0	"	33.3	ND	106	27-151	0.0845	25			
Ethylbenzene	40.1	1.0	"	33.3	ND	120	29-160	2.34	50			
m,p-Xylene	75.1	2.0	"	66.7	ND	113	20-166	2.34	36			
o-Xylene	39.4	1.0	"	33.3	ND	118	33-159	2.68	26			
Surrogate: 1,2-Dichloroethane-d4	14.2		"	13.2		108	37-154					
Surrogate: Toluene-d8	13.6		"	13.3		102	45-149					
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		101	45-146					

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
09/30/13 15:12

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

October 03, 2013

Brandon Bruns
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203
RE: Bunyan #1

Enclosed are the results of analyses for samples received by Summit Scientific on 09/30/13 16:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Joseph J Egry IV
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written approval of Summit Scientific. Test results relate only to samples analyzed.

Summit Scientific is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Bruns

Reported:
 10/03/13 13:49

MW01
R309268-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/30/13 15:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	3100116	10/02/13	10/02/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **09/30/13 15:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.0 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		98.3 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
10/03/13 13:49

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 3100116 - EPA 5030 Water MS

Blank (3100116-BLK1)

Prepared & Analyzed: 10/02/13

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>12.4</i>		<i>"</i>	<i>13.2</i>		<i>94.1</i>	<i>37-154</i>			
<i>Surrogate: Toluene-d8</i>	<i>14.8</i>		<i>"</i>	<i>13.3</i>		<i>111</i>	<i>45-149</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.6</i>		<i>"</i>	<i>13.3</i>		<i>102</i>	<i>45-146</i>			

LCS (3100116-BS1)

Prepared & Analyzed: 10/02/13

Benzene	33.4	1.0	ug/l	33.3		100	51-132			
Toluene	34.3	1.0	"	33.3		103	51-138			
Ethylbenzene	32.0	1.0	"	33.3		96.2	58-146			
m,p-Xylene	66.3	2.0	"	66.7		99.5	57-144			
o-Xylene	32.7	1.0	"	33.3		98.2	53-146			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>13.0</i>		<i>"</i>	<i>13.2</i>		<i>97.9</i>	<i>37-154</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.3</i>		<i>"</i>	<i>13.3</i>		<i>99.9</i>	<i>45-149</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.4</i>		<i>"</i>	<i>13.3</i>		<i>101</i>	<i>45-146</i>			

LCS Dup (3100116-BSD1)

Prepared & Analyzed: 10/02/13

Benzene	34.4	1.0	ug/l	33.3		103	51-132	2.92	17	
Toluene	35.2	1.0	"	33.3		106	51-138	2.53	17	
Ethylbenzene	32.6	1.0	"	33.3		98.0	58-146	1.85	16	
m,p-Xylene	67.8	2.0	"	66.7		102	57-144	2.18	16	
o-Xylene	33.6	1.0	"	33.3		101	53-146	2.80	15	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>13.1</i>		<i>"</i>	<i>13.2</i>		<i>98.8</i>	<i>37-154</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.2</i>		<i>"</i>	<i>13.3</i>		<i>99.3</i>	<i>45-149</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.7</i>		<i>"</i>	<i>13.3</i>		<i>102</i>	<i>45-146</i>			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 10/03/13 13:49

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 3100116 - EPA 5030 Water MS

Matrix Spike (3100116-MS1)	Source: R309266-01			Prepared & Analyzed: 10/02/13						
Benzene	34.1	1.0	ug/l	33.3	ND	102	34-141			
Toluene	35.3	1.0	"	33.3	ND	106	27-151			
Ethylbenzene	32.8	1.0	"	33.3	ND	98.5	29-160			
m,p-Xylene	68.4	2.0	"	66.7	ND	103	20-166			
o-Xylene	33.5	1.0	"	33.3	ND	100	33-159			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>12.8</i>		<i>"</i>	<i>13.2</i>		<i>96.7</i>	<i>37-154</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.2</i>		<i>"</i>	<i>13.3</i>		<i>99.1</i>	<i>45-149</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.5</i>		<i>"</i>	<i>13.3</i>		<i>101</i>	<i>45-146</i>			

Matrix Spike Dup (3100116-MSD1)	Source: R309266-01			Prepared & Analyzed: 10/02/13						
Benzene	34.4	1.0	ug/l	33.3	ND	103	34-141	0.817	32	
Toluene	35.2	1.0	"	33.3	ND	106	27-151	0.312	25	
Ethylbenzene	32.8	1.0	"	33.3	ND	98.5	29-160	0.0305	50	
m,p-Xylene	67.8	2.0	"	66.7	ND	102	20-166	0.910	36	
o-Xylene	33.4	1.0	"	33.3	ND	100	33-159	0.269	26	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>13.0</i>		<i>"</i>	<i>13.2</i>		<i>98.5</i>	<i>37-154</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.2</i>		<i>"</i>	<i>13.3</i>		<i>99.3</i>	<i>45-149</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.2</i>		<i>"</i>	<i>13.3</i>		<i>99.4</i>	<i>45-146</i>			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
10/03/13 13:49

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

December 26, 2013

Brandon Bruns
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203
RE: Bunyan #1

Enclosed are the results of analyses for samples received by Summit Scientific on 12/19/13 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'BS', with a long, sweeping horizontal line extending to the right.

Ben Shrewsbury
President / Laboratory Manager



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/26/13 19:51

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	R312132-01	Water	12/19/13 15:00	12/19/13 16:00
MW03	R312132-02	Water	12/19/13 15:00	12/19/13 16:00
MW05R	R312132-03	Water	12/19/13 15:00	12/19/13 16:00
MW06	R312132-04	Water	12/19/13 15:00	12/19/13 16:00

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 12/26/13 19:51

**MW01
 R312132-01 (Water)**

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/19/13 15:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	3122007	12/23/13	12/23/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 12/19/13 15:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		113 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		96.9 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 12/26/13 19:51

MW03
R312132-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/19/13 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	27	1.0	ug/l	1	3122007	12/23/13	12/23/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	6.0	1.0	"	"	"	"	"	"	
Xylenes (total)	15	1.0	"	"	"	"	"	"	

Date Sampled: **12/19/13 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		120 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		100 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		97.8 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 12/26/13 19:51

MW05R
R312132-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/19/13 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	3122007	12/23/13	12/23/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **12/19/13 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		109 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		97.2 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		110 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Bruns

Reported:
 12/26/13 19:51

MW06
R312132-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/19/13 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	3122007	12/23/13	12/23/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **12/19/13 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		112 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		97.2 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	45-146		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
12/26/13 19:51

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 3122007 - EPA 5030 Water MS

Blank (3122007-BLK1)

Prepared: 12/20/13 Analyzed: 12/21/13

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	14.7		"	13.2		111	37-154			
Surrogate: Toluene-d8	13.2		"	13.3		99.1	45-149			
Surrogate: 4-Bromofluorobenzene	13.6		"	13.3		102	45-146			

LCS (3122007-BS1)

Prepared: 12/20/13 Analyzed: 12/21/13

Benzene	32.9	1.0	ug/l	33.3		98.6	51-132			
Toluene	33.1	1.0	"	33.3		99.4	51-138			
Ethylbenzene	33.8	1.0	"	33.3		101	58-146			
m,p-Xylene	64.7	2.0	"	66.7		97.1	57-144			
o-Xylene	31.9	1.0	"	33.3		95.8	53-146			
Surrogate: 1,2-Dichloroethane-d4	14.8		"	13.2		112	37-154			
Surrogate: Toluene-d8	13.2		"	13.3		98.9	45-149			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		101	45-146			

LCS (3122007-BS2)

Prepared: 12/20/13 Analyzed: 12/21/13

Benzene	32.2	1.0	ug/l	33.3		96.7	51-132			
Toluene	33.4	1.0	"	33.3		100	51-138			
Ethylbenzene	33.6	1.0	"	33.3		101	58-146			
m,p-Xylene	64.7	2.0	"	66.7		97.0	57-144			
o-Xylene	31.2	1.0	"	33.3		93.6	53-146			
Surrogate: 1,2-Dichloroethane-d4	15.0		"	13.2		113	37-154			
Surrogate: Toluene-d8	13.2		"	13.3		98.7	45-149			
Surrogate: 4-Bromofluorobenzene	13.1		"	13.3		98.4	45-146			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
12/26/13 19:51

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit		

Batch 3122007 - EPA 5030 Water MS

Matrix Spike (3122007-MS1)		Source: R312119-01			Prepared: 12/20/13		Analyzed: 12/21/13	
Benzene	32.5	1.0	ug/l	33.3	1.52	92.9	34-141	
Toluene	32.9	1.0	"	33.3	ND	98.7	27-151	
Ethylbenzene	33.3	1.0	"	33.3	ND	99.9	29-160	
m,p-Xylene	64.2	2.0	"	66.7	1.08	94.7	20-166	
o-Xylene	30.8	1.0	"	33.3	ND	92.5	33-159	
Surrogate: 1,2-Dichloroethane-d4	14.5		"	13.2		110	37-154	
Surrogate: Toluene-d8	13.3		"	13.3		99.6	45-149	
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		101	45-146	
Matrix Spike (3122007-MS2)		Source: R312119-02			Prepared: 12/20/13		Analyzed: 12/21/13	
Benzene	673	1.0	ug/l	33.3	552	363	34-141	QM-07
Toluene	34.7	1.0	"	33.3	ND	104	27-151	
Ethylbenzene	34.8	1.0	"	33.3	1.42	100	29-160	
m,p-Xylene	124	2.0	"	66.7	102	32.4	20-166	
o-Xylene	37.6	1.0	"	33.3	7.95	88.9	33-159	
Surrogate: 1,2-Dichloroethane-d4	15.0		"	13.2		113	37-154	
Surrogate: Toluene-d8	13.6		"	13.3		102	45-149	
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		100	45-146	
Matrix Spike Dup (3122007-MSD1)		Source: R312119-01			Prepared: 12/20/13		Analyzed: 12/21/13	
Benzene	32.4	1.0	ug/l	33.3	1.52	92.6	34-141	0.277 32
Toluene	32.6	1.0	"	33.3	ND	97.7	27-151	1.01 25
Ethylbenzene	34.0	1.0	"	33.3	ND	102	29-160	1.96 50
m,p-Xylene	66.1	2.0	"	66.7	1.08	97.6	20-166	2.91 36
o-Xylene	31.7	1.0	"	33.3	ND	95.2	33-159	2.91 26
Surrogate: 1,2-Dichloroethane-d4	15.5		"	13.2		117	37-154	
Surrogate: Toluene-d8	13.2		"	13.3		98.9	45-149	
Surrogate: 4-Bromofluorobenzene	13.7		"	13.3		103	45-146	

Summit Scientific

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PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 12/26/13 19:51

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 3122007 - EPA 5030 Water MS

Matrix Spike Dup (3122007-MSD2)	Source: R312119-02			Prepared: 12/20/13		Analyzed: 12/21/13				
Benzene	604	1.0	ug/l	33.3	552	157	34-141	10.7	32	QM-07
Toluene	32.9	1.0	"	33.3	ND	98.8	27-151	5.18	25	
Ethylbenzene	34.7	1.0	"	33.3	1.42	99.8	29-160	0.345	50	
m,p-Xylene	124	2.0	"	66.7	102	32.8	20-166	0.194	36	
o-Xylene	36.6	1.0	"	33.3	7.95	85.9	33-159	2.67	26	
Surrogate: 1,2-Dichloroethane-d4	15.5		"	13.2		117	37-154			
Surrogate: Toluene-d8	13.3		"	13.3		99.9	45-149			
Surrogate: 4-Bromofluorobenzene	13.7		"	13.3		103	45-146			

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/26/13 19:51

Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

March 24, 2014

Brandon Bruns
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203
RE: Bunyan #1

Enclosed are the results of analyses for samples received by Summit Scientific on 03/14/14 17:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'BS', with a long, sweeping horizontal line extending to the right.

Ben Shrewsbury
President / Laboratory Manager



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/24/14 12:50

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	1403109-01	Water	03/13/14 15:20	03/14/14 17:15
MW03	1403109-02	Water	03/13/14 15:30	03/14/14 17:15
MW05R	1403109-03	Water	03/13/14 15:40	03/14/14 17:15
MW06	1403109-04	Water	03/13/14 15:50	03/14/14 17:15

Summit Scientific

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PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
 Project Manager: Brandon Bruns

Reported:
 03/24/14 12:50

Page 1 of 1

1403109

Summit Scientific

S₂

741 Corporate Circle, Suite 18X • Golden, Colorado 80401
 303-277-9510 • 303-374-9933

Client: McTosman
 Address: _____
 City/State/Zip: _____
 Project Manager: Brandon Bruns
 E-Mail: _____

Phone: _____
 Project Name: Bunyan #1
 Project Number: _____
 Sampler Name: Eric Siegel

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested	Special Instructions	
					HCl	HNO3	None	Other (Specify)	Groundwater	Soil	Air-Canister #			Other (Specify)
1	Mud 1	3/23/14	1520	3		X								
2	Mud 2		1530											
3	Mud 51R		1540											
4	Mud 6		1550											
5														
6														
7														
8														
9														
10														

Relinquished by: Eric Siegel Date/Time: 3/14/14 Received by: MB Date/Time: 3/14/14 175

Relinquished by: _____ Date/Time: _____ Received by: _____ Date/Time: _____

Relinquished by: _____ Date/Time: _____ Received by: _____ Date/Time: _____

Notes:
 Turn Around Time (Check)
 Same Day 72 hours
 24 hours Standard
 48 hours
 Sample Integrity: Temperature Upon Receipt: 0C
 Intact: Yes No

www.ssscientific.com

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PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 03/24/14 12:50

MW01
1403109-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/13/14 15:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1403163	03/20/14	03/20/14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/13/14 15:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		85.5 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		97.7 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.8 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 03/24/14 12:50

MW03
1403109-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/13/14 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	9.1	1.0	ug/l	1	1403163	03/20/14	03/20/14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	1.0	1.0	"	"	"	"	"	"	
Xylenes (total)	4.4	1.0	"	"	"	"	"	"	

Date Sampled: **03/13/14 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		88.0 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		97.8 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		99.2 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 03/24/14 12:50

MW05R
1403109-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/13/14 15:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1403163	03/20/14	03/20/14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/13/14 15:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		87.5 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.1 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		94.8 %	45-146		"	"	"	"	

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The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Bruns

Reported:
 03/24/14 12:50

MW06
1403109-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/13/14 15:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1403163	03/20/14	03/20/14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/13/14 15:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		88.9 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		100 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.3 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/24/14 12:50

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1403163 - EPA 5030 Water MS

Blank (1403163-BLK1)

Prepared & Analyzed: 03/20/14

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	11.7		"	13.2		88.5	37-154			
Surrogate: Toluene-d8	12.9		"	13.3		97.0	45-149			
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3		95.8	45-146			

LCS (1403163-BS1)

Prepared & Analyzed: 03/20/14

Benzene	32.3	1.0	ug/l	33.3		96.9	51-132			
Toluene	34.9	1.0	"	33.3		105	51-138			
Ethylbenzene	34.2	1.0	"	33.3		102	58-146			
m,p-Xylene	69.1	2.0	"	66.7		104	57-144			
o-Xylene	33.7	1.0	"	33.3		101	53-146			
Surrogate: 1,2-Dichloroethane-d4	11.5		"	13.2		86.8	37-154			
Surrogate: Toluene-d8	13.3		"	13.3		99.6	45-149			
Surrogate: 4-Bromofluorobenzene	12.9		"	13.3		96.8	45-146			

LCS (1403163-BS2)

Prepared & Analyzed: 03/20/14

Benzene	31.9	1.0	ug/l	33.3		95.6	51-132			
Toluene	34.6	1.0	"	33.3		104	51-138			
Ethylbenzene	34.5	1.0	"	33.3		104	58-146			
m,p-Xylene	69.6	2.0	"	66.7		104	57-144			
o-Xylene	34.0	1.0	"	33.3		102	53-146			
Surrogate: 1,2-Dichloroethane-d4	11.4		"	13.2		86.1	37-154			
Surrogate: Toluene-d8	13.0		"	13.3		97.1	45-149			
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3		95.8	45-146			

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/24/14 12:50

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1403163 - EPA 5030 Water MS

Matrix Spike (1403163-MS1)		Source: 1403109-01			Prepared & Analyzed: 03/20/14					
Benzene	31.6	1.0	ug/l	33.3	ND	94.8	34-141			
Toluene	34.8	1.0	"	33.3	ND	104	27-151			
Ethylbenzene	34.7	1.0	"	33.3	ND	104	29-160			
m,p-Xylene	71.0	2.0	"	66.7	ND	106	20-166			
o-Xylene	34.4	1.0	"	33.3	ND	103	33-159			
Surrogate: 1,2-Dichloroethane-d4	11.2		"	13.2		84.7	37-154			
Surrogate: Toluene-d8	13.1		"	13.3		98.3	45-149			
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3		95.6	45-146			

Matrix Spike (1403163-MS2)		Source: 1403109-03			Prepared & Analyzed: 03/20/14					
Benzene	41.6	1.0	ug/l	33.3	ND	125	34-141			
Toluene	35.2	1.0	"	33.3	ND	106	27-151			
Ethylbenzene	35.9	1.0	"	33.3	ND	108	29-160			
m,p-Xylene	75.2	2.0	"	66.7	ND	113	20-166			
o-Xylene	34.5	1.0	"	33.3	ND	104	33-159			
Surrogate: 1,2-Dichloroethane-d4	11.3		"	13.2		85.4	37-154			
Surrogate: Toluene-d8	13.1		"	13.3		98.4	45-149			
Surrogate: 4-Bromofluorobenzene	12.7		"	13.3		95.0	45-146			

Matrix Spike Dup (1403163-MSD1)		Source: 1403109-01			Prepared & Analyzed: 03/20/14					
Benzene	32.8	1.0	ug/l	33.3	ND	98.3	34-141	3.57	32	
Toluene	35.8	1.0	"	33.3	ND	107	27-151	2.89	25	
Ethylbenzene	35.4	1.0	"	33.3	ND	106	29-160	2.20	50	
m,p-Xylene	71.0	2.0	"	66.7	ND	106	20-166	0.0141	36	
o-Xylene	34.2	1.0	"	33.3	ND	103	33-159	0.554	26	
Surrogate: 1,2-Dichloroethane-d4	11.6		"	13.2		87.8	37-154			
Surrogate: Toluene-d8	13.3		"	13.3		99.5	45-149			
Surrogate: 4-Bromofluorobenzene	12.9		"	13.3		97.1	45-146			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 03/24/14 12:50

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1403163 - EPA 5030 Water MS

Matrix Spike Dup (1403163-MSD2)	Source: 1403109-03			Prepared & Analyzed: 03/20/14						
Benzene	41.8	1.0	ug/l	33.3	ND	125	34-141	0.599	32	
Toluene	35.4	1.0	"	33.3	ND	106	27-151	0.510	25	
Ethylbenzene	36.0	1.0	"	33.3	ND	108	29-160	0.111	50	
m,p-Xylene	75.5	2.0	"	66.7	ND	113	20-166	0.385	36	
o-Xylene	34.7	1.0	"	33.3	ND	104	33-159	0.491	26	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>11.2</i>		<i>"</i>	<i>13.2</i>		<i>84.3</i>	<i>37-154</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.2</i>		<i>"</i>	<i>13.3</i>		<i>99.2</i>	<i>45-149</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>12.6</i>		<i>"</i>	<i>13.3</i>		<i>94.6</i>	<i>45-146</i>			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/24/14 12:50

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

July 07, 2014

Brandon Bruns
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203
RE: Bunyan #1

Enclosed are the results of analyses for samples received by Summit Scientific on 06/27/14 09:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'BS', with a long, sweeping horizontal line extending to the right.

Ben Shrewsbury
President / Laboratory Manager



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
07/07/14 12:43

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	1406214-01	Water	06/25/14 14:10	06/27/14 09:00
MW03	1406214-02	Water	06/25/14 14:20	06/27/14 09:00
MW05R	1406214-03	Water	06/25/14 14:25	06/27/14 09:00
MW06	1406214-04	Water	06/25/14 14:30	06/27/14 09:00

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 07/07/14 12:43

MW01
1406214-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/25/14 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1406248	07/01/14	07/01/14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/25/14 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>109 %</i>	<i>37-154</i>		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		<i>98.3 %</i>	<i>45-149</i>		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>104 %</i>	<i>45-146</i>		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 07/07/14 12:43

MW03
1406214-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/25/14 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	3.2	1.0	ug/l	1	1406248	07/01/14	07/01/14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/25/14 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		107 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		97.7 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		102 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 07/07/14 12:43

MW05R
1406214-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/25/14 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1406248	07/01/14	07/01/14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/25/14 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		108 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.6 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		101 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 07/07/14 12:43

MW06
1406214-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/25/14 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1406248	07/01/14	07/01/14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/25/14 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>124 %</i>	<i>37-154</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: Toluene-d8</i>		<i>99.4 %</i>	<i>45-149</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>102 %</i>	<i>45-146</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
07/07/14 12:43

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1406248 - EPA 5030 Water MS

Blank (1406248-BLK1)

Prepared & Analyzed: 07/01/14

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	14.6		"	13.2		111	37-154			
Surrogate: Toluene-d8	13.2		"	13.3		99.2	45-149			
Surrogate: 4-Bromofluorobenzene	13.8		"	13.3		103	45-146			

LCS (1406248-BS1)

Prepared & Analyzed: 07/01/14

Benzene	41.1	1.0	ug/l	33.3		123	51-132			
Toluene	39.6	1.0	"	33.3		119	51-138			
Ethylbenzene	41.6	1.0	"	33.1		126	58-146			
m,p-Xylene	81.0	2.0	"	66.5		122	57-144			
o-Xylene	39.7	1.0	"	32.8		121	53-146			
Surrogate: 1,2-Dichloroethane-d4	14.9		"	13.2		113	37-154			
Surrogate: Toluene-d8	13.5		"	13.3		101	45-149			
Surrogate: 4-Bromofluorobenzene	13.1		"	13.3		98.3	45-146			

Matrix Spike (1406248-MS1)

Source: 1406214-01

Prepared & Analyzed: 07/01/14

Benzene	40.9	1.0	ug/l	33.3	ND	123	34-141			
Toluene	39.1	1.0	"	33.3	ND	117	27-151			
Ethylbenzene	41.3	1.0	"	33.1	ND	125	29-160			
m,p-Xylene	81.5	2.0	"	66.5	ND	122	20-166			
o-Xylene	39.8	1.0	"	32.8	ND	121	33-159			
Surrogate: 1,2-Dichloroethane-d4	14.6		"	13.2		110	37-154			
Surrogate: Toluene-d8	13.3		"	13.3		99.9	45-149			
Surrogate: 4-Bromofluorobenzene	13.1		"	13.3		98.2	45-146			

Summit Scientific

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PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 07/07/14 12:43

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1406248 - EPA 5030 Water MS

Matrix Spike Dup (1406248-MSD1)	Source: 1406214-01			Prepared & Analyzed: 07/01/14						
Benzene	41.1	1.0	ug/l	33.3	ND	123	34-141	0.561	32	
Toluene	39.1	1.0	"	33.3	ND	117	27-151	0.0767	25	
Ethylbenzene	41.6	1.0	"	33.1	ND	126	29-160	0.699	50	
m,p-Xylene	80.4	2.0	"	66.5	ND	121	20-166	1.40	36	
o-Xylene	40.0	1.0	"	32.8	ND	122	33-159	0.527	26	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>14.9</i>		<i>"</i>	<i>13.2</i>		<i>113</i>	<i>37-154</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.3</i>		<i>"</i>	<i>13.3</i>		<i>99.5</i>	<i>45-149</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.2</i>		<i>"</i>	<i>13.3</i>		<i>98.7</i>	<i>45-146</i>			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
07/07/14 12:43

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

September 15, 2014

Brandon Bruns
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203
RE: Bunyan #1

Enclosed are the results of analyses for samples received by Summit Scientific on 09/11/14 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Ben Shrewsbury', with a long, sweeping horizontal line extending to the right.

Ben Shrewsbury
President / Laboratory Manager



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
09/15/14 12:32

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	1409074-01	Water	09/10/14 12:00	09/11/14 17:00
MW03	1409074-02	Water	09/10/14 12:02	09/11/14 17:00
MW05R	1409074-03	Water	09/10/14 12:04	09/11/14 17:00
MW06	1409074-04	Water	09/10/14 12:06	09/11/14 17:00

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
09/15/14 12:32

Summit Scientific 1409074

S₂

741 Corporate Circle, Suite J&K ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-374-5933

Page 1 of 1

Client: Tasman Geosciences / PDC Project Manager: Brandon Bruns
Address: 6899 Pecos Street E-Mail:
City/State/Zip: Denver, CO 80221
Phone: 303-487-1228 Fax: Project Name: Bunyan #1
Sampler Name: Brad Marguerit Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested				Special Instructions	
					HCl	HNO3	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	8260 GBTEXN	8015 DRO	8260 BTEX		
1	MW01	9/10/14	1200	3	X				X					X			
2	MW02	9/10/14	1202	3	X				X					X			
3	MW05R	9/10/14	1204	3	X				X					X			
4	MW06	9/10/14	1206	3	X				X					X			
5																	
6																	
7																	
8																	
9																	
10																	

Relinquished by:	Date/Time: 9/11/14	Received by:	Date/Time: 9/11/14 1700	Turn Around Time (Check)	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Same Day <input type="checkbox"/> 72 hours	
				24 hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/>	
				48 hours <input type="checkbox"/>	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity:	
				Temperature Upon Receipt: 3°C	
				Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

www.s2scientific.com

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Bruns

Reported:
 09/15/14 12:32

MW01
1409074-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/10/14 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1409105	09/12/14	09/12/14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **09/10/14 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		118 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		98.3 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 09/15/14 12:32

MW03
1409074-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/10/14 12:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	4.3	1.0	ug/l	1	1409105	09/12/14	09/12/14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **09/10/14 12:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		119 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.2 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		101 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Bruns

Reported:
 09/15/14 12:32

MW05R
1409074-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/10/14 12:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1409105	09/12/14	09/12/14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **09/10/14 12:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>120 %</i>	<i>37-154</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: Toluene-d8</i>		<i>97.3 %</i>	<i>45-149</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>103 %</i>	<i>45-146</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Bruns

Reported:
 09/15/14 12:32

MW06
1409074-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/10/14 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1409105	09/12/14	09/12/14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **09/10/14 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		122 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.8 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		102 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
09/15/14 12:32

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike Level	Source		%REC		RPD		Notes
	Result	Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 1409105 - EPA 5030 Water MS

Blank (1409105-BLK1)

Prepared & Analyzed: 09/12/14

Benzene	ND	1.0	ug/l								
Toluene	ND	1.0	"								
Ethylbenzene	ND	1.0	"								
Xylenes (total)	ND	1.0	"								
Surrogate: 1,2-Dichloroethane-d4	16.1		"	13.2		122		37-154			
Surrogate: Toluene-d8	13.1		"	13.3		98.0		45-149			
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3		96.1		45-146			

LCS (1409105-BS1)

Prepared & Analyzed: 09/12/14

Benzene	48.1	1.0	ug/l	50.0		96.3		51-132			
Toluene	52.1	1.0	"	50.0		104		51-138			
Ethylbenzene	49.4	1.0	"	50.0		98.7		58-146			
m,p-Xylene	97.2	2.0	"	100		97.2		57-144			
o-Xylene	49.6	1.0	"	50.0		99.3		53-146			
Surrogate: 1,2-Dichloroethane-d4	14.3		"	13.2		108		37-154			
Surrogate: Toluene-d8	14.0		"	13.3		105		45-149			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		98.7		45-146			

Matrix Spike (1409105-MS1)

Source: 1409076-01

Prepared & Analyzed: 09/12/14

Benzene	51.4	1.0	ug/l	50.0	ND	103		34-141			
Toluene	52.6	1.0	"	50.0	ND	105		27-151			
Ethylbenzene	52.0	1.0	"	50.0	ND	104		29-160			
m,p-Xylene	102	2.0	"	100	ND	102		20-166			
o-Xylene	52.7	1.0	"	50.0	ND	105		33-159			
Surrogate: 1,2-Dichloroethane-d4	13.9		"	13.2		105		37-154			
Surrogate: Toluene-d8	13.8		"	13.3		103		45-149			
Surrogate: 4-Bromofluorobenzene	13.1		"	13.3		98.6		45-146			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 09/15/14 12:32

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1409105 - EPA 5030 Water MS

Matrix Spike Dup (1409105-MSD1)	Source: 1409076-01			Prepared & Analyzed: 09/12/14						
Benzene	50.6	1.0	ug/l	50.0	ND	101	34-141	1.61	32	
Toluene	64.0	1.0	"	50.0	ND	128	27-151	19.4	25	
Ethylbenzene	50.2	1.0	"	50.0	ND	100	29-160	3.45	50	
m,p-Xylene	98.9	2.0	"	100	ND	98.9	20-166	3.21	36	
o-Xylene	51.1	1.0	"	50.0	ND	102	33-159	2.99	26	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>15.9</i>		<i>"</i>	<i>13.2</i>		<i>120</i>	<i>37-154</i>			
<i>Surrogate: Toluene-d8</i>	<i>17.2</i>		<i>"</i>	<i>13.3</i>		<i>129</i>	<i>45-149</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.6</i>		<i>"</i>	<i>13.3</i>		<i>102</i>	<i>45-146</i>			

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
09/15/14 12:32

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

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Summit Scientific

741 Corporate Circle – Suite J ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.374.5933 - fax

December 13, 2014

Brandon Bruns
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203
RE: Bunyan #1

Enclosed are the results of analyses for samples received by Summit Scientific on 12/04/14 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Joseph J. Egry IV". The signature is fluid and cursive, with a small "IV" superscripted at the end.

Joseph J Egry IV For Paul Shrewsbury
President

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
12/13/14 08:18

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	1412035-01	Water	12/04/14 09:45	12/04/14 16:00
MW03	1412035-02	Water	12/04/14 09:40	12/04/14 16:00
MW05R	1412035-03	Water	12/04/14 09:35	12/04/14 16:00
MW06	1412035-04	Water	12/04/14 09:30	12/04/14 16:00

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Joseph J Egly IV For Paul Shrewsbury, President



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/13/14 08:18

Summit Scientific ¹⁴¹²⁰³⁵

S₂

741 Corporate Circle, Suite J&K ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-374-5933

Page 1 of 1

Client: PDC/Tasman Project Manager: Brandon Bruns
Address: _____ E-Mail: _____
City/State/Zip: _____
Phone: _____ Fax: _____ Project Name: Bunyan 1
Sampler Name: Eric Siegel Project Number: _____

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested				Special Instructions
					HCl	HNO3	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)				
1	MW01	12/4/14	945	2	X				X			X				
2	MW03	↓	940	3	↓				↓			↓				
3	MW05R	↓	935	↓	↓				↓			↓				
4	MW06	↓	930	↓	↓				↓			↓				
5																
6																
7																
8																
9																
10																
Relinquished by: <u>Eric A. Siegel</u>		Date/Time: <u>12/4/14 16:00</u>		Received by: <u>[Signature]</u>		Date/Time: <u>12/4/14 16:00</u>		Turn Around Time (Check)				Notes:				
								Same Day <input type="checkbox"/>				72 hours <input type="checkbox"/>				
								24 hours <input type="checkbox"/>				Standard <input checked="" type="checkbox"/>				
								48 hours <input type="checkbox"/>								
								Sample Integrity:								
								Temperature Upon Receipt: <u>4.2</u>								
								Intact: Yes <input type="checkbox"/> No <input type="checkbox"/>								

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Soil samples reported on a wet-weight basis unless otherwise indicated on results page.

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Joseph J Egry IV For Paul Shrewsbury, President



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 12/13/14 08:18

MW01
1412035-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/04/14 09:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1412058	12/10/14	12/10/14 14:14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **12/04/14 09:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	106 %	37-154				"	"	"	"
Surrogate: Toluene-d8	93.8 %	45-149				"	"	"	"
Surrogate: 4-Bromofluorobenzene	96.3 %	45-146				"	"	"	"

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Joseph J Egrý IV For Paul Shrewsbury, President



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Bruns

Reported:
 12/13/14 08:18

MW03
1412035-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/04/14 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1412058	12/10/14	12/10/14 14:38	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **12/04/14 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	108 %	37-154				"	"	"	"
Surrogate: Toluene-d8	92.2 %	45-149				"	"	"	"
Surrogate: 4-Bromofluorobenzene	94.7 %	45-146				"	"	"	"

Summit Scientific

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Joseph J Egrý IV For Paul Shrewsbury, President



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Bruns

Reported:
 12/13/14 08:18

MW05R
1412035-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/04/14 09:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1412058	12/10/14	12/10/14 15:03	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **12/04/14 09:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	106 %	37-154				"	"	"	"
Surrogate: Toluene-d8	93.5 %	45-149				"	"	"	"
Surrogate: 4-Bromofluorobenzene	98.0 %	45-146				"	"	"	"

Summit Scientific

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Joseph J Egrý IV For Paul Shrewsbury, President



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Bruns

Reported:
 12/13/14 08:18

MW06
1412035-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/04/14 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1412058	12/10/14	12/10/14 15:27	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **12/04/14 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	109 %	37-154			"	"	"	"	
Surrogate: Toluene-d8	92.2 %	45-149			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	96.0 %	45-146			"	"	"	"	

Summit Scientific

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Joseph J Egrý IV For Paul Shrewsbury, President



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/13/14 08:18

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1412058 - EPA 5030 Water MS

Blank (1412058-BLK1)

Prepared & Analyzed: 12/06/14

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>13.9</i>		<i>"</i>	<i>13.2</i>		<i>105</i>	<i>37-154</i>			
<i>Surrogate: Toluene-d8</i>	<i>12.8</i>		<i>"</i>	<i>13.3</i>		<i>96.0</i>	<i>45-149</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.0</i>		<i>"</i>	<i>13.3</i>		<i>97.7</i>	<i>45-146</i>			

LCS (1412058-BS1)

Prepared & Analyzed: 12/06/14

Benzene	30.3	1.0	ug/l	33.3		90.8	51-132			
Toluene	29.5	1.0	"	33.3		88.6	51-138			
Ethylbenzene	31.5	1.0	"	33.1		95.2	58-146			
m,p-Xylene	61.4	2.0	"	66.5		92.2	57-144			
o-Xylene	31.8	1.0	"	32.8		97.1	53-146			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>13.8</i>		<i>"</i>	<i>13.2</i>		<i>105</i>	<i>37-154</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.1</i>		<i>"</i>	<i>13.3</i>		<i>98.3</i>	<i>45-149</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>12.8</i>		<i>"</i>	<i>13.3</i>		<i>95.8</i>	<i>45-146</i>			

LCS (1412058-BS2)

Prepared & Analyzed: 12/06/14

Benzene	30.7	1.0	ug/l	33.3		92.2	51-132			
Toluene	30.2	1.0	"	33.3		90.5	51-138			
Ethylbenzene	31.7	1.0	"	33.1		96.0	58-146			
m,p-Xylene	61.8	2.0	"	66.5		92.9	57-144			
o-Xylene	32.3	1.0	"	32.8		98.4	53-146			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>14.0</i>		<i>"</i>	<i>13.2</i>		<i>106</i>	<i>37-154</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.3</i>		<i>"</i>	<i>13.3</i>		<i>99.5</i>	<i>45-149</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>12.6</i>		<i>"</i>	<i>13.3</i>		<i>94.7</i>	<i>45-146</i>			

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Joseph J Egry IV For Paul Shrewsbury, President



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/13/14 08:18

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD		

Batch 1412058 - EPA 5030 Water MS

Matrix Spike (1412058-MS1)	Source: 1412021-01			Prepared & Analyzed: 12/06/14							
Benzene	31.1	1.0	ug/l	33.3	ND	93.2	34-141				
Toluene	29.4	1.0	"	33.3	ND	88.1	27-151				
Ethylbenzene	32.1	1.0	"	33.1	ND	97.2	29-160				
m,p-Xylene	62.7	2.0	"	66.5	ND	94.3	20-166				
o-Xylene	32.7	1.0	"	32.8	ND	99.6	33-159				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>14.3</i>		<i>"</i>	<i>13.2</i>		<i>108</i>	<i>37-154</i>				
<i>Surrogate: Toluene-d8</i>	<i>13.1</i>		<i>"</i>	<i>13.3</i>		<i>98.1</i>	<i>45-149</i>				
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>12.4</i>		<i>"</i>	<i>13.3</i>		<i>92.9</i>	<i>45-146</i>				

Matrix Spike (1412058-MS2)	Source: 1412021-02			Prepared & Analyzed: 12/06/14							
Benzene	30.2	1.0	ug/l	33.3	ND	90.7	34-141				
Toluene	29.2	1.0	"	33.3	ND	87.5	27-151				
Ethylbenzene	32.4	1.0	"	33.1	ND	98.0	29-160				
m,p-Xylene	63.3	2.0	"	66.5	ND	95.2	20-166				
o-Xylene	32.9	1.0	"	32.8	ND	100	33-159				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>14.2</i>		<i>"</i>	<i>13.2</i>		<i>107</i>	<i>37-154</i>				
<i>Surrogate: Toluene-d8</i>	<i>12.7</i>		<i>"</i>	<i>13.3</i>		<i>95.0</i>	<i>45-149</i>				
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>12.5</i>		<i>"</i>	<i>13.3</i>		<i>93.8</i>	<i>45-146</i>				

Matrix Spike Dup (1412058-MSD1)	Source: 1412021-01			Prepared & Analyzed: 12/06/14							
Benzene	31.0	1.0	ug/l	33.3	ND	93.2	34-141	0.0966	32		
Toluene	29.7	1.0	"	33.3	ND	89.2	27-151	1.22	25		
Ethylbenzene	31.9	1.0	"	33.1	ND	96.6	29-160	0.624	50		
m,p-Xylene	62.3	2.0	"	66.5	ND	93.6	20-166	0.704	36		
o-Xylene	32.7	1.0	"	32.8	ND	99.8	33-159	0.184	26		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>14.4</i>		<i>"</i>	<i>13.2</i>		<i>109</i>	<i>37-154</i>				
<i>Surrogate: Toluene-d8</i>	<i>13.0</i>		<i>"</i>	<i>13.3</i>		<i>97.7</i>	<i>45-149</i>				
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>12.3</i>		<i>"</i>	<i>13.3</i>		<i>92.5</i>	<i>45-146</i>				

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Joseph J Egry IV For Paul Shrewsbury, President



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 12/13/14 08:18

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD		

Batch 1412058 - EPA 5030 Water MS

Matrix Spike Dup (1412058-MSD2)	Source: 1412021-02			Prepared & Analyzed: 12/06/14						
Benzene	30.1	1.0	ug/l	33.3	ND	90.4	34-141	0.265	32	
Toluene	28.1	1.0	"	33.3	ND	84.3	27-151	3.74	25	
Ethylbenzene	31.7	1.0	"	33.1	ND	95.7	29-160	2.37	50	
m,p-Xylene	62.2	2.0	"	66.5	ND	93.6	20-166	1.70	36	
o-Xylene	32.3	1.0	"	32.8	ND	98.4	33-159	1.96	26	
Surrogate: 1,2-Dichloroethane-d4	14.3		"	13.2		108	37-154			
Surrogate: Toluene-d8	12.6		"	13.3		94.7	45-149			
Surrogate: 4-Bromofluorobenzene	12.5		"	13.3		93.6	45-146			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Joseph J Egry IV For Paul Shrewsbury, President



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/13/14 08:18

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Joseph J Egry IV For Paul Shrewsbury, President

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

March 23, 2015

Brandon Bruns
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203
RE: Bunyan #1

Enclosed are the results of analyses for samples received by Summit Scientific on 03/17/15 17:55. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury
President



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/23/15 16:36

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	1503149-01	Water	03/17/15 14:10	03/17/15 17:55
MW03	1503149-02	Water	03/17/15 14:12	03/17/15 17:55
MW05R	1503149-03	Water	03/17/15 14:15	03/17/15 17:55
MW06	1503149-04	Water	03/17/15 14:14	03/17/15 17:55

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1

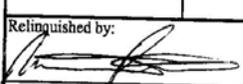
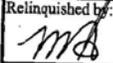
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/23/15 16:36

Summit Scientific 1503149

741 Corporate Circle Suite I • Golden, Colorado 80401
303-277-9310 • 303-374-5933 Fax

Client: PDC Energy (Tasman) Page _____ of _____
 Address: 6899 Pecos St Unit C
 City/State/Zip: Denver CO 80221
 Phone: 303 427 1228 Fax: _____
 Sampler Name: Matt Petersen
 Project Manager: Brandon Bruns
 E-Mail: brandon.brun@pdc.com
 Project Name: Bunyan 1
 Project Number: _____

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:				Special Instructions	
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)					
MW01	3/17/15	1410	3	X												
MW03	↓	1412	↓													
MW05R	↓	1415	↓													
MW06	↓	1414	↓													
Relinquished by: 		Date/Time: 3/17/15	Received by: 		Date/Time: 3/17/15 1720	Turn Around Time (Check)				Notes:						
						Same Day	<input type="checkbox"/>	72 Hours	<input type="checkbox"/>							
						24 Hours	<input type="checkbox"/>	Standard	<input checked="" type="checkbox"/>							
						48 Hours	<input type="checkbox"/>									
Relinquished by: 		Date/Time: 3/17/15 1755	Received in Lab by: 		Date/Time: 3-17 17:55	Sample Integrity:										
						Temperature Upon Receipt: 7.1°C										
						Intact:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No								

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PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
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Sample Receipt Checklist

S2 Work Order: 1503149

Client: PDC Client Project ID: Bunyan 1

Shipped Via: Pick Up Airbill #:
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Matrix (check all that apply): Air Soil/Solid Water Other:
(Describe)

Cooler ID	<u>1</u>				
Temp (°C)	<u>7.1</u>				

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature just above 0°C to ≤ 6°C ⁽¹⁾ ?		<input checked="" type="checkbox"/>		
<small>NOTE: If samples are delivered the same day of sampling, this requirement is waived provided that there is evidence that cooling has begun.</small>				
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
If custody seals are present, are they intact ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.		<input checked="" type="checkbox"/>		
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, etc.	<input checked="" type="checkbox"/>			<u>HCl</u>
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.			<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?			<input checked="" type="checkbox"/>	
Additional Comments (if any):				

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

Joseph J Eary
 Custodian Printed Name

[Signature]
 Signature or Initials of Custodian

3/18/15
 Date/Time

[Signature]



PDC Energy
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Project: Bunyan #1
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 Project Manager: Brandon Bruns

Reported:
 03/23/15 16:36

MW01
1503149-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/17/15 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1503241	03/20/15	03/20/15	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/17/15 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		85.4 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		97.7 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		112 %	45-146		"	"	"	"	

Summit Scientific

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Project: Bunyan #1
 Project Number: [none]
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Reported:
 03/23/15 16:36

MW03
1503149-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/17/15 14:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1503241	03/20/15	03/20/15	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	2.0	1.0	"	"	"	"	"	"	

Date Sampled: **03/17/15 14:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		85.0 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		94.5 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		108 %	45-146		"	"	"	"	

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PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
 Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 03/23/15 16:36

MW05R
1503149-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/17/15 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1503241	03/20/15	03/20/15	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/17/15 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		83.9 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		95.8 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		109 %	45-146		"	"	"	"	

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 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bunyan #1
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 Project Manager: Brandon Brunns

Reported:
 03/23/15 16:36

MW06
1503149-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/17/15 14:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1503241	03/20/15	03/20/15	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/17/15 14:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		92.6 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.8 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		112 %	45-146		"	"	"	"	

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Project: Bunyan #1
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Project Manager: Brandon Brunns

Reported:
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Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1503241 - EPA 5030 Water MS

Blank (1503241-BLK1)

Prepared & Analyzed: 03/20/15

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	11.2		"	13.2		84.5	37-154			
Surrogate: Toluene-d8	12.9		"	13.3		96.8	45-149			
Surrogate: 4-Bromofluorobenzene	14.8		"	13.3		111	45-146			

LCS (1503241-BS1)

Prepared & Analyzed: 03/20/15

Benzene	31.0	1.0	ug/l	33.3		93.0	51-132			
Toluene	29.9	1.0	"	33.3		89.7	51-138			
Ethylbenzene	32.5	1.0	"	33.1		98.3	58-146			
m,p-Xylene	70.8	2.0	"	66.5		106	57-144			
o-Xylene	32.2	1.0	"	32.8		98.1	53-146			
Surrogate: 1,2-Dichloroethane-d4	11.4		"	13.2		86.3	37-154			
Surrogate: Toluene-d8	12.7		"	13.3		95.3	45-149			
Surrogate: 4-Bromofluorobenzene	14.2		"	13.3		106	45-146			

Matrix Spike (1503241-MS1)

Source: 1503149-01

Prepared & Analyzed: 03/20/15

Benzene	30.8	1.0	ug/l	33.3	ND	92.4	34-141			
Toluene	29.3	1.0	"	33.3	ND	87.9	27-151			
Ethylbenzene	31.7	1.0	"	33.1	ND	95.9	29-160			
m,p-Xylene	67.7	2.0	"	66.5	ND	102	20-166			
o-Xylene	31.0	1.0	"	32.8	ND	94.4	33-159			
Surrogate: 1,2-Dichloroethane-d4	11.5		"	13.2		87.1	37-154			
Surrogate: Toluene-d8	12.8		"	13.3		95.9	45-149			
Surrogate: 4-Bromofluorobenzene	14.2		"	13.3		106	45-146			

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Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 1503241 - EPA 5030 Water MS

Matrix Spike Dup (1503241-MSD1)	Source: 1503149-01			Prepared & Analyzed: 03/20/15						
Benzene	31.6	1.0	ug/l	33.3	ND	94.9	34-141	2.63	32	
Toluene	29.9	1.0	"	33.3	ND	89.7	27-151	2.03	25	
Ethylbenzene	31.6	1.0	"	33.1	ND	95.4	29-160	0.474	50	
m,p-Xylene	68.2	2.0	"	66.5	ND	102	20-166	0.707	36	
o-Xylene	31.7	1.0	"	32.8	ND	96.6	33-159	2.33	26	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>12.4</i>		<i>"</i>	<i>13.2</i>		<i>94.1</i>	<i>37-154</i>			
<i>Surrogate: Toluene-d8</i>	<i>12.8</i>		<i>"</i>	<i>13.3</i>		<i>96.0</i>	<i>45-149</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>14.3</i>		<i>"</i>	<i>13.3</i>		<i>107</i>	<i>45-146</i>			

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Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference