

Project: 7239
Document #: 2211165
Date: 01/22/2016



PDC Energy, Inc.
Second Quarter 2014 Groundwater Monitoring Summary

May 28, 2014

Ryan 23-25U & 25BU, 14-25U/ Scott 24-25U/ MVS #1 Tank Battery
SESW Section 25 T5N R68W
Weld County, API # 05-069-06179

This groundwater monitoring summary has been prepared by Tasman Geosciences, LLC for the Ryan 23-25U & 25BU, 14-25U/ Scott 24-25U/ MVS #1 tank battery. On April 15, 2014 three replacement monitoring wells (BH02R, BH03R, and BH05R) were installed at the site, as groundwater levels have dropped following installation of the original wells (BH02, BH03, and BH05). On April 28, 2014, groundwater sampling was conducted at the five temporary monitoring well locations. Groundwater samples were submitted for laboratory analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) constituents using USEPA Method 8260B. Analytical results are summarized in Table 1 and are illustrated on Figure 1. The laboratory analytical report is included as Attachment A. Evaluation of second quarter analytical results indicates that BTEX concentrations are below COGCC regulatory standards at all five sample locations.

EFR/AS activities have resulted in reduction of dissolved phase benzene concentrations on site, as demonstrated by the site-wide decrease in benzene concentrations since activities commenced during the second quarter 2012. EFR/AS events were not performed during the third and fourth quarters 2013 due to low water levels at the site. A summary of the EFR/AS operational data through the second quarter 2013 is provided in Table 2. Monitored natural attenuation will remain the selected remediation strategy for the third quarter 2014.

Third quarter 2014 groundwater sampling will be conducted during July 2014.

TABLE 1
RYAN 23-25U, 25BU, 14-25U/SCOTT 24-25U/MVS 1
GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE

Sample ID	Date Sampled	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Depth to Water (feet)
GW01-BH-01	4/13/2012	320	810	44	490	NM
BH01	7/17/2012	<1.0	<1.0	<1.0	<1.0	14.39
BH01	10/1/2012	<1.0	<1.0	<1.0	<1.0	14.67
BH01	1/28/2013	<1.0	<1.0	<1.0	<1.0	14.90
BH01	5/3/2013	<1.0	<1.0	<1.0	<1.0	15.50
BH01	7/25/2013	<1.0	<1.0	<1.0	<1.0	16.29
BH01	10/31/2013	<1.0	<1.0	<1.0	<1.0	15.90
BH01	1/24/2014	<1.0	<1.0	<1.0	<1.0	15.53
BH01	4/28/2014	<1.0	<1.0	<1.0	<1.0	15.26
GW02-BH02	4/13/2012	7,100	14,000	420	4,400	NM
BH02	7/17/2012	DRY	DRY	DRY	DRY	DRY
BH02	10/1/2012	DRY	DRY	DRY	DRY	DRY
BH02	1/28/2013	DRY	DRY	DRY	DRY	DRY
BH02	5/3/2013	DRY	DRY	DRY	DRY	DRY
BH02	7/25/2013	DRY	DRY	DRY	DRY	DRY
BH02	10/31/2013	DRY	DRY	DRY	DRY	DRY
BH02 ⁽³⁾	1/24/2014	DRY	DRY	DRY	DRY	DRY
BH02R	4/28/2014	1.0	<1.0	<1.0	<1.0	17.06
GW03-BH03	4/13/2012	11,000	13,000	300	3,500	NM
BH03	7/17/2012	1,400	710	20	250	13.82
BH03	10/1/2012	41	47	3	32	14.20
BH03	1/28/2013	DRY	DRY	DRY	DRY	DRY
BH03	5/3/2013	<1.0	<1.0	<1.0	<1.0	14.81
BH03	7/25/2013	DRY	DRY	DRY	DRY	DRY
BH03	10/31/2013	DRY	DRY	DRY	DRY	DRY
BH03 ⁽³⁾	1/24/2014	<1.0	<1.0	<1.0	<1.0	14.82
BH03R	4/28/2014	<1.0	<1.0	<1.0	<1.0	16.08
GW04-BH04	4/13/2012	3,100	3,900	150	1,700	NM
BH04	7/17/2012	1,500	490	<1.0	1,900	13.21
BH04 ⁽²⁾	10/1/2012	2,400	66	53	1,800	13.58
BH04R	1/28/2013	26	<1.0	<1.0	77	14.53
BH04R	5/3/2013	<1.0	<1.0	<1.0	<1.0	15.22
BH04R	7/25/2013	2.0	<1.0	<1.0	<1.0	16.12
BH04R	10/31/2013	<1.0	<1.0	<1.0	4.1	15.77
BH04R	1/24/2014	<1.0	<1.0	3.3	<1.0	15.24
BH04R	4/28/2014	<1.0	<1.0	4.1	<1.0	15.03

TABLE 1
RYAN 23-25U, 25BU, 14-25U/SCOTT 24-25U/MVS 1
GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE

Sample ID	Date Sampled	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Depth to Water (feet)
GW05-BH05	4/13/2012	510	3,400	190	2,200	NM
BH05	7/17/2012	<1.0	<1.0	<1.0	<1.0	13.30
BH05	10/1/2012	<1.0	<1.0	<1.0	<1.0	15.60
BH05	1/28/2013	<1.0	<1.0	<1.0	<1.0	15.74
BH05	5/3/2013	<1.0	<1.0	<1.0	<1.0	16.45
BH05	7/25/2013	DRY	DRY	DRY	DRY	DRY
BH05	8/31/2013	DRY	DRY	DRY	DRY	DRY
BH05	10/31/2013	DRY	DRY	DRY	DRY	DRY
BH05 ⁽³⁾	1/24/2014	<1.0	<1.0	<1.0	<1.0	16.49
BH05R	4/28/2014	<1.0	<1.0	<1.0	<1.0	15.89
COGCC standards for Groundwater (ug/L) ⁽¹⁾		5	560	700	1,400	

Notes:

- 1). The environmental cleanup standards for groundwater that are applicable to this site are the Colorado Oil and Gas Conservation Commission (COGCC) standards for contaminants in groundwater according to Table 910-1 of the COGCC 900 Series Rule for E&P Waste Management.
- 2). Groundwater sample collection at BH04 discontinued following installation of BH04R during the fourth quarter 2012.
- 2). Groundwater sample collection at BH02, BH03, and BH05 discontinued following installation of BH02R, BH03R, and BH05R during the second quarter 2013.

Bold red values indicate an exceedance of the COGCC groundwater standards for the site.

ug/L= Micrograms per liter

NM - Not Measured

TABLE 2
RYAN 23-25U, 25BU, 14-25U/SCOTT 24-25U/MVS 1
AS / EFR OPERATIONAL DATA SUMMARY TABLE

Second Quarter 2012					
Date	EFR Wells	Total EFR/AS Duration (hours)	Approximate Fluid Volume Extracted (gallons)	AS Wells	Injection Pressure (psi)
5/29/2012	BH01, BH02, BH03,	6	210	BH01, BH02, BH03,	8
6/13/2012	BH04, BH05	6	210	BH04, BH05	8
Quarterly Totals		12	420		-
Third Quarter 2012					
7/2/2012	BH01, BH02, BH03, BH04, BH05	6	252	BH01, BH02, BH03, BH04, BH05	8
7/10/2012		6	210		8
7/25/2012		6	207		8
8/18/2012		7	124.5		7.5
8/21/2012		8	124.5		8
9/4/2012		7	0		8
Quarterly Totals		40	918		-
Fourth Quarter 2012					
10/3/2012	BH01, BH02, BH03, BH04, BH05	7	83	BH01, BH02, BH03, BH04, BH05	8
10/30/2012		6	11.5		8
11/13/2012		6	23		8
11/29/2012		6.5	14.6		8
12/6/2012		6.5	7.5		8
Quarterly Totals		32	139.6		-
First Quarter 2013					
1/7/2013	BH03, BH04, BH05	5	10	BH03, BH04, BH05	10
3/25/2013		6	26		10
Quarterly Totals		11	36		-
Second Quarter 2013					
4/14/2013	BH03, BH04, BH05	6	23.5	BH03, BH04, BH05	10
4/25/2013		6	16		10
5/10/2013		6	22		10
Quarterly Totals		18	61.5		-



Surface
Drainage

BH03R		
Compound (ug/L)	1/24/2014	4/28/2014
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Total Xylenes	<1.0	<1.0

BH04R		
Compound (ug/L)	1/24/2014	1/24/2014
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	3.3	4.1
Total Xylenes	<1.0	<1.0

BH05R		
Compound (ug/L)	1/24/2014	4/28/2014
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Total Xylenes	<1.0	<1.0

BH03R

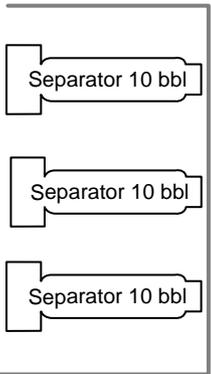
BH03

BH04R

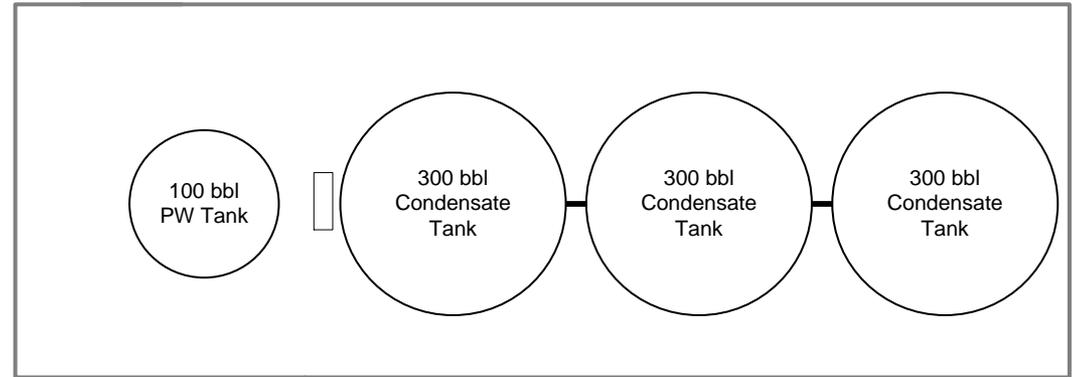
BH04

BH05

BH05R



BH01



BH01		
Compound (ug/L)	1/24/2014	4/28/2014
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Total Xylenes	<1.0	<1.0

BH02

BH02R

BH02R		
Compound (ug/L)	1/24/2014	4/28/2014
Benzene	NS	1.0
Toluene	NS	<1.0
Ethylbenzene	NS	<1.0
Total Xylenes	NS	<1.0

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

DRAWN BY: ESS
DATE: 5/12/2014

Facility Diagram
PDC Energy – DJ Basin
Ryan 23-25U & 25BU, 14-25U/ Scott 24-25U/ MVS #1
SESW T5N R68W S25
Weld County, CO

 **TASMAN**
GEOSCIENCES
6899 Pecos St., Unit C
Denver CO 80221

LEGEND
 Corrugated Steel Berm
 Monitoring Well Location. Soil and Groundwater Samples Collected
 Sampling Discontinued from Monitoring Well Location

 Meter Shed
FIGURE 1
GROUNDWATER ANALYTICAL RESULTS
 Not to Scale

ATTACHMENT A

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

May 06, 2014

Brandon Bruns

PDC Energy

1775 Sherman St. STE. 3000

Denver, CO 80203

RE: Ryan 14, 23-25U, 25BU/Scott 24-25U/MVS 1

Enclosed are the results of analyses for samples received by Summit Scientific on 04/28/14 18:35. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black 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: Ryan 14, 23-25U, 25BU/Scott 24-25U/MVS 1

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
05/06/14 15:12

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH-01	1404213-01	Water	04/28/14 16:20	04/28/14 18:35
BH-02R	1404213-02	Water	04/28/14 16:45	04/28/14 18:35
BH-03R	1404213-03	Water	04/28/14 16:50	04/28/14 18:35
BH-04R	1404213-04	Water	04/28/14 17:00	04/28/14 18:35
BH-05R	1404213-05	Water	04/28/14 17:10	04/28/14 18:35

Summit Scientific

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

Project: Ryan 14, 23-25U, 25BU/Scott 24-25U/MVS 1

Project Number: [none]
 Project Manager: Brandon Bruns

Reported:
 05/06/14 15:12

BH-01
1404213-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/28/14 16:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1405003	05/02/14	05/02/14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **04/28/14 16:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>115 %</i>	<i>37-154</i>		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		<i>98.8 %</i>	<i>45-149</i>		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>103 %</i>	<i>45-146</i>		"	"	"	"	

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

Project: Ryan 14, 23-25U, 25BU/Scott 24-25U/MVS 1

Project Number: [none]
 Project Manager: Brandon Bruns

Reported:
 05/06/14 15:12

BH-02R
1404213-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/28/14 16:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	1.0	1.0	ug/l	1	1405003	05/02/14	05/02/14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **04/28/14 16:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		116 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		99.6 %	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: Ryan 14, 23-25U, 25BU/Scott 24-25U/MVS 1

Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 05/06/14 15:12

BH-03R
1404213-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/28/14 16:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1405003	05/02/14	05/02/14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **04/28/14 16:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		115 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		101 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	45-146		"	"	"	"	

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

Project: Ryan 14, 23-25U, 25BU/Scott 24-25U/MVS 1

Project Number: [none]
 Project Manager: Brandon Bruns

Reported:
 05/06/14 15:12

BH-04R
1404213-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/28/14 17:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1405003	05/02/14	05/02/14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	4.1	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **04/28/14 17:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		113 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		101 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		106 %	45-146		"	"	"	"	

Summit Scientific

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

Project: Ryan 14, 23-25U, 25BU/Scott 24-25U/MVS 1

Project Number: [none]
 Project Manager: Brandon Bruns

Reported:
 05/06/14 15:12

BH-05R
1404213-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/28/14 17:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1405003	05/02/14	05/02/14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **04/28/14 17:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>114 %</i>	<i>37-154</i>		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		<i>99.2 %</i>	<i>45-149</i>		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>109 %</i>	<i>45-146</i>		"	"	"	"	

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

Project: Ryan 14, 23-25U, 25BU/Scott 24-25U/MVS 1

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
05/06/14 15:12

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 1405003 - EPA 5030 Water MS

Blank (1405003-BLK1)

Prepared & Analyzed: 05/01/14

Benzene	ND	1.0	ug/l								
Toluene	ND	1.0	"								
Ethylbenzene	ND	1.0	"								
Xylenes (total)	ND	1.0	"								
Surrogate: 1,2-Dichloroethane-d4	14.4		"	13.2		108		37-154			
Surrogate: Toluene-d8	13.4		"	13.3		100		45-149			
Surrogate: 4-Bromofluorobenzene	14.0		"	13.3		105		45-146			

LCS (1405003-BS1)

Prepared & Analyzed: 05/01/14

Benzene	32.2	1.0	ug/l	33.2		97.0		51-132			
Toluene	34.9	1.0	"	33.3		105		51-138			
Ethylbenzene	34.5	1.0	"	33.1		104		58-146			
m,p-Xylene	71.8	2.0	"	66.7		108		57-144			
o-Xylene	35.1	1.0	"	32.9		107		53-146			
Surrogate: 1,2-Dichloroethane-d4	14.9		"	13.2		113		37-154			
Surrogate: Toluene-d8	13.6		"	13.3		102		45-149			
Surrogate: 4-Bromofluorobenzene	14.2		"	13.3		106		45-146			

LCS (1405003-BS2)

Prepared & Analyzed: 05/01/14

Benzene	32.3	1.0	ug/l	33.2		97.2		51-132			
Toluene	34.7	1.0	"	33.3		104		51-138			
Ethylbenzene	34.5	1.0	"	33.1		104		58-146			
m,p-Xylene	71.8	2.0	"	66.7		108		57-144			
o-Xylene	35.1	1.0	"	32.9		107		53-146			
Surrogate: 1,2-Dichloroethane-d4	14.6		"	13.2		110		37-154			
Surrogate: Toluene-d8	13.5		"	13.3		101		45-149			
Surrogate: 4-Bromofluorobenzene	13.8		"	13.3		104		45-146			

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

Project: Ryan 14, 23-25U, 25BU/Scott 24-25U/MVS 1

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
05/06/14 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 1405003 - EPA 5030 Water MS

Matrix Spike (1405003-MS1)

Source: 1404212-01

Prepared & Analyzed: 05/01/14

Benzene	32.0	1.0	ug/l	33.2	ND	96.4	34-141			
Toluene	34.2	1.0	"	33.3	ND	102	27-151			
Ethylbenzene	34.0	1.0	"	33.1	ND	103	29-160			
m,p-Xylene	71.0	2.0	"	66.7	ND	106	20-166			
o-Xylene	34.5	1.0	"	32.9	ND	105	33-159			
Surrogate: 1,2-Dichloroethane-d4	14.3		"	13.2		108	37-154			
Surrogate: Toluene-d8	13.3		"	13.3		99.8	45-149			
Surrogate: 4-Bromofluorobenzene	13.6		"	13.3		102	45-146			

Matrix Spike (1405003-MS2)

Source: 1404212-02

Prepared & Analyzed: 05/01/14

Benzene	32.4	1.0	ug/l	33.2	ND	97.6	34-141			
Toluene	35.2	1.0	"	33.3	ND	106	27-151			
Ethylbenzene	34.4	1.0	"	33.1	ND	104	29-160			
m,p-Xylene	72.4	2.0	"	66.7	ND	109	20-166			
o-Xylene	35.4	1.0	"	32.9	ND	108	33-159			
Surrogate: 1,2-Dichloroethane-d4	14.7		"	13.2		111	37-154			
Surrogate: Toluene-d8	13.7		"	13.3		103	45-149			
Surrogate: 4-Bromofluorobenzene	13.8		"	13.3		104	45-146			

Matrix Spike Dup (1405003-MSD1)

Source: 1404212-01

Prepared & Analyzed: 05/01/14

Benzene	33.4	1.0	ug/l	33.2	ND	100	34-141	4.10	32	
Toluene	36.1	1.0	"	33.3	ND	108	27-151	5.44	25	
Ethylbenzene	35.0	1.0	"	33.1	ND	106	29-160	2.73	50	
m,p-Xylene	72.8	2.0	"	66.7	ND	109	20-166	2.50	36	
o-Xylene	35.9	1.0	"	32.9	ND	109	33-159	3.83	26	
Surrogate: 1,2-Dichloroethane-d4	14.6		"	13.2		111	37-154			
Surrogate: Toluene-d8	13.8		"	13.3		104	45-149			
Surrogate: 4-Bromofluorobenzene	13.8		"	13.3		103	45-146			

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

Project: Ryan 14, 23-25U, 25BU/Scott 24-25U/MVS 1

Project Number: [none]
 Project Manager: Brandon Brunns

Reported:
 05/06/14 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 1405003 - EPA 5030 Water MS

Matrix Spike Dup (1405003-MSD2)	Source: 1404212-02			Prepared & Analyzed: 05/01/14						
Benzene	32.5	1.0	ug/l	33.2	ND	97.9	34-141	0.277	32	
Toluene	34.3	1.0	"	33.3	ND	103	27-151	2.53	25	
Ethylbenzene	35.0	1.0	"	33.1	ND	106	29-160	1.87	50	
m,p-Xylene	73.4	2.0	"	66.7	ND	110	20-166	1.36	36	
o-Xylene	36.1	1.0	"	32.9	ND	110	33-159	2.01	26	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>15.7</i>		<i>"</i>	<i>13.2</i>		<i>118</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>13.8</i>		<i>"</i>	<i>13.3</i>		<i>103</i>	<i>45-146</i>			

Summit Scientific

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

Project: Ryan 14, 23-25U, 25BU/Scott 24-25U/MVS 1

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
05/06/14 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

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