Analysis Report

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ANALYTICAL RESULTS

Prepared by: Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 ExxonMobil PO Box 4592 Houston TX 77210-4592

July 30, 2014

Project: Mayflower, AR Pipeline Incident

Submittal Date: 07/18/2014 Group Number: 1490043 SDG: PEO13 PO Number: 4410181435 Release Number: SIXSMITH State of Sample Origin: AR

Client Sample Description	<u>Lancaster Labs (LL) #</u>
WS-007(0.5-1.0)071714 Grab Surface Water	7537877
WS-009(Surface)071714 Grab Surface Water	7537878
WS-001(0.5-1.0)071714 Grab Surface Water	7537879
WS-021(Surface)071714 Grab Surface Water	7537880
WS-004(0.5-1.0)071714 Grab Surface Water	7537881

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC	ARCADIS	Attn: Stephen Barrick
COPY TO		
ELECTRONIC	ARCADIS	Attn: Lyndi Mott
COPY TO		
ELECTRONIC	ExxonMobil	Attn: Michael J. Firth
COPY TO		
ELECTRONIC	ARCADIS	Attn: Emily Leamer
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ELECTRONIC	ARCADIS	Attn: Rhiannon Parmalee
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ELECTRONIC	ExxonMobil	Attn: Michael L Sixsmith
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ELECTRONIC	ExxonMobil	Attn: Julie Foster
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ELECTRONIC	ARCADIS	Attn: Kim Abbott
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Analysis Report

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Respectfully Submitted,

Katherine A. Klinefelter Principal Specialist

Katherine a. Klinefelter

(717) 556-7256

Case Narrative

Project Name: Mayflower, AR Pipeline Incident LL Group #: 1490043

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

SW-846 8270C SIM, GC/MS Semivolatiles

<u>Sample #s: 7537877, 7537878, 7537881</u>

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

<u>Sample #s: 7537879, 7537880</u>

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.
The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.

Batch #: 14200wAJ026 (Sample number(s): 7537877-7537881)

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7537879, 7537880



Analysis Report

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Sample Description: WS-007(0.5-1.0)071714 Grab Surface Water

S20135565 Mayflower, AR

Pipeline Incident

LL Sample # WW 7537877

LL Group # 1490043 Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/17/2014 10:45 by MH ExxonMobil PO Box 4592

Houston TX 77210-4592

Submitted: 07/18/2014 09:45 Reported: 07/30/2014 08:37

P1301 SDG#: PEO13-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846	8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.017 J	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.018 J	0.010	0.051	1
08357	Benzo(b) fluoranthene	205-99-2	0.028 J	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.038 J	0.010	0.051	1
08357	Benzo(k) fluoranthene	207-08-9	0.015 J	0.010	0.051	1
08357	Chrysene	218-01-9	0.024 J	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.032 J	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.040 J	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.034 J	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	0.029 J	0.010	0.051	1
	laboratory did not receive suf			m		

the method QC requirement for MS/MSD or MS/DUP analysis.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Ti	me		Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14200WAJ026	07/25/2014	21:00	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14200WAJ026	07/21/2014	09:50	Katheryne V Sponheimer	1



Analysis Report

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Sample Description: WS-009(Surface)071714 Grab Surface Water

S20135565 Mayflower, AR

Pipeline Incident

LL Sample # WW 7537878

LL Group # 1490043 Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/17/2014 10:50 by MH ExxonMobil

PO Box 4592

Houston TX 77210-4592

Submitted: 07/18/2014 09:45 Reported: 07/30/2014 08:37

P1302 SDG#: PEO13-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846	8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b) fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k) fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1
The	laboratory did not receive sur					

the method QC requirement for MS/MSD or MS/DUP analysis.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Ti	me		Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14200WAJ026	07/25/2014	21:27	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14200WAJ026	07/21/2014	09:50	Katheryne V Sponheimer	1



Analysis Report

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Sample Description: WS-001(0.5-1.0)071714 Grab Surface Water

S20135565 Mayflower, AR

Pipeline Incident

LL Sample # WW 7537879

LL Group # 1490043 Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/17/2014 10:55 by MH ExxonMobil PO Box 4592

Houston TX 77210-4592

Submitted: 07/18/2014 09:45 Reported: 07/30/2014 08:37

P1303 SDG#: PEO13-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846	8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

The laboratory did not receive sufficient sample volume to perform

the method QC requirement for MS/MSD or MS/DUP analysis.

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Tir	me		Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14200WAJ026	07/25/2014	21:54	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14200WAJ026	07/21/2014	09:50	Katheryne V Sponheimer	1



Analysis Report

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Sample Description: WS-021(Surface)071714 Grab Surface Water

S20135565 Mayflower, AR

Pipeline Incident

LL Sample # WW 7537880

LL Group # 1490043 Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/17/2014 11:00 by MH ExxonMobil

PO Box 4592

Houston TX 77210-4592

Submitted: 07/18/2014 09:45 Reported: 07/30/2014 08:37

P1304 SDG#: PEO13-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846	8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

The laboratory did not receive sufficient sample volume to perform the method OC requirement for MS/MSD or MS/DID analysis

the method QC requirement for ${\tt MS/MSD}$ or ${\tt MS/DUP}$ analysis.

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14200WAJ026	07/25/2014	22:21	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14200WAJ026	07/21/2014	09:50	Katheryne V Sponheimer	1



Analysis Report

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Sample Description: WS-004(0.5-1.0)071714 Grab Surface Water

S20135565 Mayflower, AR

Pipeline Incident

LL Sample # WW 7537881 LL Group # 1490043

Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/17/2014 11:05 by MH ExxonMobil PO Box 4592

Houston TX 77210-4592

Submitted: 07/18/2014 09:45 Reported: 07/30/2014 08:37

P1305 SDG#: PEO13-05*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846	8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b) fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1
	laboratory did not receive suf method QC requirement for MS/M					

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Ti	me		Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14200WAJ026	07/25/2014	22:48	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14200WAJ026	07/21/2014	09:50	Katheryne V Sponheimer	1



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Quality Control Summary

Client Name: ExxonMobil Group Number: 1490043

Reported: 07/30/14 at 08:37 AM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank MDL**	Blank <u>LOQ</u>	Report <u>Units</u>	LCS %REC	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD Max
Batch number: 14200WAJ026	Sample numb	ber(s): 75	37877-753	7881					
Acenaphthene	N.D.	0.010	0.050	ug/l	114	107	83-119	6	30
Acenaphthylene	N.D.	0.010	0.050	ug/l	95	89	81-130	7	30
Anthracene	N.D.	0.010	0.050	ug/l	101	98	83-125	3	30
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	98	94	79-122	5	30
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	97	93	80-121	4	30
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	105	100	79-136	4	30
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	82	82	72-132	0	30
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	98	95	81-131	2	30
Chrysene	N.D.	0.010	0.050	ug/l	103	99	84-118	3	30
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	69	70	66-133	2	30
Fluoranthene	N.D.	0.010	0.050	ug/l	98	95	84-124	3	30
Fluorene	N.D.	0.010	0.050	ug/l	97	92	82-119	6	30
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	74	74	68-132	0	30
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	96	90	86-130	7	30
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	90	84	81-131	7	30
Naphthalene	N.D.	0.030	0.050	ug/l	101	94	82-122	7	30
Phenanthrene	N.D.	0.030	0.050	ug/l	98	94	83-116	4	30
Pyrene	N.D.	0.010	0.050	ug/l	97	92	78-125	5	30

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PAHs in waters by SIM

Batch number: 14200WAJ026

Bacen na	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene- d10	
7537877	94	87	86	
7537878	87	64	83	
7537879	71	36*	73	
7537880	82	54*	80	
7537881	96	84	85	
Blank	90	96	82	
LCS	96	93	89	
LCSD	92	90	84	

- *- Outside of specification
- **-This limit was used in the evaluation of the final result for the blank
- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.



Analysis Report

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Quality Control Summary

Client Name: ExxonMobil Group Number: 1490043

Reported: 07/30/14 at 08:37 AM

Surrogate Quality Control

Limits: 59-128 62-141 70-134

^{*-} Outside of specification

^{**-}This limit was used in the evaluation of the final result for the blank

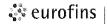
⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.

ExxonMobil Analysis Request/Chain of Custody

💸 eurofins	Lancaster		Acct. #	14-	<u> 73'</u>	9	Fo Group:	or Eur	ofins	Lanc	aster	Labor	oratories imple #	s use	only	<u> 178</u>	77-	81	-	/	104/
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1) Facility #/SID	Client Ir	nformation				4)	Matrix		['	5)			nalyse						SCR#	:	
Mayflower	lipeline	Incident		_	_!				'				Presei	rvati	ion C	Code				Preservation	Codes
Site Address May flower	10						Ground Surface			T.									N =	HNO ₃ B =	Thiosulfate NaOH
ExxonMobil PM 1 1/2 S1/2 S	smith	Cost Center/AFE	Manager Committee			│ □ □	Ground	_		Sil									S = 6	H ₂ SO ₄ 0 = Remark	Other
Consultant/Office						Sediment			ners												
Consultant PM Seve barrie	ck	Consultant Phone #	-6799			ပို	Potable NPDES	Air	· Containers	270											
Sampler Hembi	,			3	osite				# of C	A											
2) Sample Identification	n	Collec Date	cted Time	Grab	Composite	Soil	Water	Oil	Total	PAH											
WS-007 (0,5-1,0)		7-17-14	1045	X			χ		2	X											
WS-009 (Surface	1071719	7-17-14	1050	X			X		2	X											
ws-001 (0.5-1,0	0)071719	7-17-19	1055	X			X		2	X											
WS-021 (Surface)	1071719	7-17-14	1100	X			X		2	X								T	T		
	0)071714	7-17-14	1105	X			X		2	X											
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				$\overline{}$						\vdash	\Box			\top	\neg	\top	\top	+			
				\Box	-				\square	$\vdash \vdash$	\Box		\sqcap	十	一	1			+		
7) Turnaround Time I	•		Relinguished	,by		2			Date 7 -	-17-		Time		F	Receive	ed by				Date	Time 9
Standard	5 day	4 day	Relinquished	by					Date			Time		F	Receive	ed by				Date	Time
72 hour	48 hour	24 hour	Relinquished	l by					Date		$\overline{}$	Time		 	Receive	ed by				Date	Time
8 Data Package (circle	e if required)	EDD (circle if required)							<u></u>			<u></u>									
Type I - Full	1	Locus EIM (default)		by Cc	ommero."									F	Receive	ed by	1, -	- n	11 -	Date	Time
Type VI (Raw Data)) [0	Other	_ UPS_	Δ		Fe	edEx		Ot	ther _					Ľ		5	<i>₹</i> <	Ry	7.18.14	9:45
NJ Reduced Other				Te	:mpei	ratur	e Upon Re	eceip	ıt	<u> </u>		_°C				Cust	ody Se	eals In	itact?	Yes	No

: eurofins |



Sample Administration Receipt Documentation Log

Doc Log ID:

20368

Group Number(s): 14 9 0043

Client: Mayflower

Delivery and Receipt Information

Delivery Method:

<u>UPS</u>

Arrival Timestamp:

07/18/2014 9:45

Number of Packages:

1

Number of Projects:

1

State/Province of Origin:

<u>AR</u>

Arrival Condition Summary

Shipping Container Sealed:

<u>Yes</u>

Total Trip Blank Qty:

0

Custody Seal Present:

No

Trip Blank Type:

<u>N/A</u>

Custody Seal Intact:

N/A <u>Yes</u> Air Quality Samples Present: Air Quality Flow Controllers Present: <u>No</u> N/A

Paperwork Enclosed:

Yes

Flow Controller Quantity:

Air Quality Returns:

0

N/A

Samples Intact: Missing Samples:

Samples Chilled:

Yes No

Extra Samples:

No

Discrepancy in Container Qty on COC:

Sample IDs on COC match Containers:

No Yes

Sample Date/Times match COC:

<u>Yes</u>

VOA Vial Headspace ≥ 6mm:

N/A

VOA IDs (\geq 6mm):

N/A

Unpacked by Carolyn Cyms (964) at 11:15 on 07/18/2014

Samples Chilled Details

Thermometer Types:

DT = Digital (Temp. Bottle)

IR = Infrared (Surface Temp)

All Temperatures in °C.

Samples Collected Same

Cooler # Thermometer ID

Corrected Temp

Therm. Type IR

Ice Present? Ice Type

Ice Container

Day as Receipt?

Elevated Temp?

8013596-IR

1.1

Wet

Bagged

Ν

Ν



Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	Ĺ	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

- < less than The number following the sign is the <u>limit of quantitation</u>, the smallest amount of analyte which can be reliably determined using this specific test.
- > greater than
- ppm parts per million One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
- ppb parts per billion
- **Dry weight**basis
 Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C - result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

	Organic Qualifiers		Inorganic Qualifiers
Α	TIC is a possible aldol-condensation product	В	Value is <crdl, but="" th="" ≥idl<=""></crdl,>
В	Analyte was also detected in the blank	Ε	Estimated due to interference
С	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
Ε	Concentration exceeds the calibration range of	S	Method of standard additions (MSA) used
	the instrument		for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
Р	Concentration difference between primary and	W	Post digestion spike out of control limits
	confirmation columns >25%	*	Duplicate analysis not within control limits
U	Compound was not detected	+	Correlation coefficient for MSA < 0.995
X,Y,Z	Defined in case narrative		

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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