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

January 13, 2015

Project: Mayflower, AR Pipeline Incident

Submittal Date: 01/08/2015 Group Number: 1529638 SDG: PEO49 PO Number: 4410272923 Release Number: SIXSMITH State of Sample Origin: AR

Client Sample Description	Lancaster Labs (LL) #
WS-007(0.5-1.0)010615 Grab Surface Water	7732563
WS-009(Surface)010615 Grab Surface Water	7732564
WS-001(0.5-1.0)010615 Grab Surface Water	7732565
WS-021(Surface)010615 Grab Surface Water	7732566
WS-004(0.5-1.0)010615 Grab Surface Water	7732567

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

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/.

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 Parmelee
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ELECTRONIC	ExxonMobil	Attn: Michael L Sixsmith
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ELECTRONIC	ExxonMobil	Attn: Julie Foster
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Analysis Report

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ELECTRONIC COPY TO ARCADIS

Attn: Sonal Patil

COPY TO ELECTRONIC COPY TO

ARCADIS

Attn: Kim Abbott

Katherine a. Klinefelter

Respectfully Submitted,

Katherine A. Klinefelter Principal Specialist

(717) 556-7256



Project Name: Mayflower, AR Pipeline Incident LL Group #: 1529638

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

Sample #s: 7732563, 7732564, 7732565, 7732566

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

<u>Sample #s: 7732567</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 #: 15008wAK026 (Sample number(s): 7732563-7732567)

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7732567



Analysis Report

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Sample Description: WS-007(0.5-1.0)010615 Grab Surface Water

LL Sample # WW 7732563 S20135565 Mayflower, AR LL Group # 1529638 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/06/2015 13:50 by ZP ExxonMobil PO Box 4592

Submitted: 01/08/2015 09:30 Houston TX 77210-4592

Reported: 01/13/2015 10:41

007--SDG#: PEO49-01

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	0.050	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	0.020 J	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	0.020 J	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	0.031 J	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	0.060	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.060	1
08357	Pyrene	129-00-0	0.026 J	0.010	0.050	1
	laboratory did not receive su: method QC requirement for MS/N					

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	15008WAK026	01/10/2015	02:46	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	15008WAK026	01/09/2015	09:00	Jessica M Velez	1



Analysis Report

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Sample Description: WS-009(Surface)010615 Grab Surface Water

S20135565 Mayflower, AR

Pipeline Incident

LL Sample # WW 7732564 LL Group # 1529638

Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/06/2015 13:55 by ZP ExxonMobil PO Box 4592

Houston TX 77210-4592

Submitted: 01/08/2015 09:30 Reported: 01/13/2015 10:41

009--SDG#: PEO49-02

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	0.012 J	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	0.060	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.060	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1
The :	laboratory did not receive suf					

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 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	15008WAK026	01/10/2015	03:13	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	15008WAK026	01/09/2015	09:00	Jessica M Velez	1



Analysis Report

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Sample Description: WS-001(0.5-1.0)010615 Grab Surface Water

S20135565 Mayflower, AR Pipeline Incident LL Group # 1529638 Account # 14739

LL Sample # WW 7732565

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/06/2015 14:00 by ZP ExxonMobil

PO Box 4592

Houston TX 77210-4592

Submitted: 01/08/2015 09:30 Reported: 01/13/2015 10:41

001-- SDG#: PEO49-03

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	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b) fluoranthene	205-99-2	0.013 J	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k) fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	0.014 J	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	0.022 J	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.063	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.063	1
08357	Pyrene	129-00-0	0.017 J	0.010	0.052	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 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	15008WAK026	01/10/2015	03:41	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	15008WAK026	01/09/2015	09:00	Jessica M Velez	1



Analysis Report

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Sample Description: WS-021(Surface)010615 Grab Surface Water

S20135565 Mayflower, AR

Pipeline Incident

LL Sample # WW 7732566 LL Group # 1529638

Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/06/2015 14:05 by ZP ExxonMobil PO Box 4592

Houston TX 77210-4592

Submitted: 01/08/2015 09:30
Reported: 01/13/2015 10:41

021-- SDG#: PEO49-04

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	0.050	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	0.015 J	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	0.060	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.060	1
08357	Pyrene	129-00-0	0.011 J	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 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	15008WAK026	01/10/2015	04:08	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	15008WAK026	01/09/2015	09:00	Jessica M Velez	1



Analysis Report

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Sample Description: WS-004(0.5-1.0)010615 Grab Surface Water

S20135565 Mayflower, AR

Pipeline Incident

LL Sample # WW 7732567 LL Group # 1529638

Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/06/2015 14:10 by ZP ExxonMobil PO Box 4592

Houston TX 77210-4592

Submitted: 01/08/2015 09:30 Reported: 01/13/2015 10:41

004-- SDG#: PEO49-05

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	0.051	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	0.018 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	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.	0.031	0.062	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.062	1
08357	Pyrene	129-00-0	0.016 J	0.010	0.051	1

The laboratory did not receive sufficient sample volume to perform

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	15008WAK026	01/10/2015	04:36	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	15008WAK026	01/09/2015	09:00	Jessica M Velez	1



Analysis Report

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Quality Control Summary

Client Name: ExxonMobil Group Number: 1529638

Reported: 01/13/15 at 10:41 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 <u>Max</u>
Batch number: 15008WAK026	Sample num	ber(s): 77	732563-773	2567					
Acenaphthene	N.D.	0.010	0.050	ug/l	101	99	82-126	3	30
Acenaphthylene	N.D.	0.010	0.050	uq/l	101	98	72-124	3	30
Anthracene	N.D.	0.010	0.050	uq/l	102	99	83-125	3	30
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	87	88	79-122	1	30
Benzo(a)pyrene	N.D.	0.010	0.050	uq/l	104	99	72-126	4	30
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	105	101	79-136	4	30
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	101	99	59-137	2	30
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	109	106	72-129	3	30
Chrysene	N.D.	0.010	0.050	ug/l	111	108	77-122	2	30
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	99	98	42-143	1	30
Fluoranthene	N.D.	0.010	0.050	ug/l	95	92	76-121	3	30
Fluorene	N.D.	0.010	0.050	ug/l	102	99	82-119	3	30
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	95	94	53-136	1	30
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	100	96	75-117	4	30
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	96	92	68-124	4	30
Naphthalene	N.D.	0.030	0.060	ug/l	101	98	78-117	3	30
Phenanthrene	N.D.	0.030	0.060	ug/l	103	100	83-116	4	30
Pyrene	N.D.	0.010	0.050	ug/l	97	99	70-124	2	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: 15008WAK026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene- d10
7732563	71	74	73
7732564	85	94	78
7732565	70	77	71
7732566	71	71	72
7732567	53*	44	61
Blank	89	101	92
LCS	87	109	94
LCSD	87	108	91
Limits:	56-134	36-156	59-132

^{*-} 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: 1529638

Reported: 01/13/15 at 10:41 AM

Surrogate Quality Control

^{*-} 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

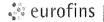
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Lancaster Laboratories Environmental

Acct. #_ 14739

For Eurofins Lancaster Laboratories Environmental use only
Group # 1529638 Sample # 1732563 - 67
Instructions on reverse side correspond with circled numbers.

1) Client Information										nalyses Requested						SCR#:					
Facility #/SID						Τ				I	Prese	ervati	on (Code							
Maylower Pree Ine	. Incident																		Preserva	tion C	odes
Site Address																		H=	HCI	T = T	hiosulfate
ExxonMobil PM					Ground		Windowski Williams	SERVICE	Ì										HNO_3	B = N	
	Cost Center/AFE				Ta e				Ì									S =	H ₂ SO ₄	0 = 0	Other
Mike SXSmiVL Consultant/Office				1 +	Gr.		and Danasan	5	ł									6	Rer	narks	
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2)	Collec		Grab	Soil	Water	_	otal	PA.A.													
Sample Identification	Date	Time	छ ।	<u> </u>		ō				Vanis on in the constant						of color (dice)	forces and the second				
W5-007(0.5-1.6)010615	1.6.15	350	X		X		2		<u></u>												
W5-009 (Surface) 010615	1.6-15	355	X		X		2	X											and the second s		
105-001 (05-1.0) 010615	1.6.15	1400	X	The state of the s	X		2	X													
WS-021 (Surface) 010615	1.6.15	1405	X		X		Z	X													
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Standard 5 day	4 day	Relinquished	hy				Date	<i>j</i>		Time				ved by		<u> </u>			Date		Time
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72 hour 48 hour	24 hour	Relinquished	by	7		College Miller of Section	Date	0 1	<u>/</u>	Time	/ <u>(</u> /		Receiv	ved by					Date		Time
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_	ocus EIM (default)	Relinquished by Commercial Carrier						· <u>-</u>		1		 -	Received by						Date/	/	Time
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NJ Reduced			Tem	peratu	re Upon	Rece	ipt _	1.	4	_°C		THE PERSONNEL		Cus	tody	Sea	ls Int	act?	Ye	s)	No
Other									1				-		20 V	OUT AND DESCRIPTION					



Sample Administration Receipt Documentation Log

Doc Log ID:

49540

Group Number(s): 1529638

Client: **EXXONMOBIL**

MAYFLOWER PIPELINE INCIDENT

Delivery and Receipt Information

Delivery Method:

<u>UPS</u>

Arrival Timestamp:

01/08/2015 9:30

Number of Packages:

1

Number of Projects:

1

State/Province of Origin:

<u>AR</u>

Arrival Condition Summary

Shipping Container Sealed:

Yes

Sample IDs on COC match Containers:

Yes

Custody Seal Present:

Yes

Sample Date/Times match COC:

Yes

Custody Seal Intact:

Yes

VOA Vial Headspace ≥ 6mm:

N/A

Samples Chilled:

Yes

Total Trip Blank Qty:

0

Paperwork Enclosed:

Yes

Air Quality Samples Present:

No

Samples Intact:

Yes No

Missing Samples:

No

Extra Samples:

No

Unpacked by Corey Eshleman (3647) at 10:07 on 01/08/2015

Samples Chilled Details: MAYFLOWER PIPELINE INCIDENT

Thermometer Types:

DT = Digital (Temp. Bottle)

IR = Infrared (Surface Temp)

All Temperatures in °C.

Cooler # Thermometer ID

DT121

Corrected Temp

Discrepancy in Container Qty on COC:

Therm. Type

Ice Type

Ice Present?

Ice Container

Elevated Temp?

1.4

DT

Wet

Υ

Bagged

Ν

T | 717-656-2300 F | 717-656-2681 www.LancasterLabs.com



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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