Maxxam
A Bureau Veritas Group Company

Attention: Amanda Styes

MARATHON PETROLEUM
1001 South Oakwood Drive
Detroit, MI
USA 48217

Report Date: 02/20/2019
Report #: R5601294
Version: 1 - Final

ANALYTICAL REPORT

MAXXAM JOB #: B942999
Received: 02/18/2019, 00:00

Sample Matrix: Passive Monitor
Samples Received: 12

Analyses	Quantity	Date Analyzed	Laboratory Method	Reference
BTEX / THCs by NIOSH, GC-FID - 3520M	12	02/20/2019	NOV SOP-00005	N1501/N1550
Volatiles (VOC) - List 1-GC/FID-3M3520	12	02/20/2019	NOV SOP-00005	NOV SOP-00005

This report shall not be reproduced except in full, without the written approval of the laboratory.
Results relate only to the items tested.
Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

Encryption Key

Greg Thompson
CS/Accounting
20 Feb 2019 17:57:05

Please direct all questions regarding this Analytical Report to your Project Manager.
Wendy Lesniak, CS
Email: WLesniak@maxxamlabs.com
Phone# (248) 344-1770
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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports.

Total Cover Pages : 1

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Maxxam Job #: B942999
Report Date: 02/20/2019

MARATHON PETROLEUM

ANALYTICAL RESULTS

Client ID:	MRD190032A	Matrix:	Passive Monitor
Maxxam ID:	IZW367	Sample Media:	3M 3520 Monitor, 2 Charcoal
Date Sampled:	02/17/2019	Sampling Time (Minutes):	605

ANALYTE	Samp Rate cc/min	Mass ug	Concentration mg/m3	Concentration ppm	RL ug	Test Method	Date Analyzed
Benzene	35.5	<1.0	<0.047	<0.015	1.0	N1501/N1550	02/20/2019
Hexane	32.0	<2.0	<0.10	<0.029	2.0	NOV SOP-00005	02/20/2019
Toluene	31.4	<3.0	<0.16	<0.042	3.0	N1501/N1550	02/20/2019
Xylenes	27.3	<6.0	<0.36	<0.084	6.0	N1501/N1550	02/20/2019
THCs as n-Hexane	32.0	<30	<1.5	<0.44	30	N1501/N1550	02/20/2019

RL = Reporting Limit

Client ID:	MRD190033A	Matrix:	Passive Monitor
Maxxam ID:	IZW368	Sample Media:	3M 3520 Monitor, 2 Charcoal
Date Sampled:	02/17/2019	Sampling Time (Minutes):	664

ANALYTE	Samp Rate cc/min	Mass ug	Concentration mg/m3	Concentration ppm	RL ug	Test Method	Date Analyzed
Benzene	35.5	<1.0	<0.042	<0.013	1.0	N1501/N1550	02/20/2019
Hexane	32.0	<2.0	<0.094	<0.027	2.0	NOV SOP-00005	02/20/2019
Toluene	31.4	<3.0	<0.14	<0.038	3.0	N1501/N1550	02/20/2019
Xylenes	27.3	<6.0	<0.33	<0.076	6.0	N1501/N1550	02/20/2019
THCs as n-Hexane	32.0	<30	<1.4	<0.40	30	N1501/N1550	02/20/2019

RL = Reporting Limit

Client ID:	MRD190034A	Matrix:	Passive Monitor
Maxxam ID:	IZW369	Sample Media:	3M 3520 Monitor, 2 Charcoal
Date Sampled:	02/17/2019	Sampling Time (Minutes):	482

ANALYTE	Samp Rate cc/min	Mass ug	Concentration mg/m3	Concentration ppm	RL ug	Test Method	Date Analyzed
Benzene	35.5	<1.0	<0.058	<0.018	1.0	N1501/N1550	02/20/2019
Hexane	32.0	<2.0	<0.13	<0.037	2.0	NOV SOP-00005	02/20/2019
Toluene	31.4	<3.0	<0.20	<0.053	3.0	N1501/N1550	02/20/2019
Xylenes	27.3	<6.0	<0.46	<0.11	6.0	N1501/N1550	02/20/2019
THCs as n-Hexane	32.0	<30	<1.9	<0.55	30	N1501/N1550	02/20/2019

RL = Reporting Limit

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MARATHON PETROLEUM

ANALYTICAL RESULTS

Client ID:	MRD190035A	Matrix:	Passive Monitor
Maxxam ID:	IZW370	Sample Media:	3M 3520 Monitor, 2 Charcoal
Date Sampled:	02/17/2019	Sampling Time (Minutes):	615

ANALYTE	Samp Rate cc/min	Mass ug	Concentration mg/m3	Concentration ppm	RL ug	Test Method	Date Analyzed
Benzene	35.5	<1.0	<0.046	<0.014	1.0	N1501/N1550	02/20/2019
Hexane	32.0	<2.0	<0.10	<0.029	2.0	NOV SOP-00005	02/20/2019
Toluene	31.4	<3.0	<0.16	<0.041	3.0	N1501/N1550	02/20/2019
Xylenes	27.3	<6.0	<0.36	<0.082	6.0	N1501/N1550	02/20/2019
THCs as n-Hexane	32.0	<30	<1.5	<0.43	30	N1501/N1550	02/20/2019

RL = Reporting Limit

Client ID:	MRD190036A	Matrix:	Passive Monitor
Maxxam ID:	IZW371	Sample Media:	3M 3520 Monitor, 2 Charcoal
Date Sampled:	02/17/2019	Sampling Time (Minutes):	605

ANALYTE	Samp Rate cc/min	Mass ug	Concentration mg/m3	Concentration ppm	RL ug	Test Method	Date Analyzed
Benzene	35.5	<1.0	<0.047	<0.015	1.0	N1501/N1550	02/20/2019
Hexane	32.0	<2.0	<0.10	<0.029	2.0	NOV SOP-00005	02/20/2019
Toluene	31.4	<3.0	<0.16	<0.042	3.0	N1501/N1550	02/20/2019
Xylenes	27.3	<6.0	<0.36	<0.084	6.0	N1501/N1550	02/20/2019
THCs as n-Hexane	32.0	<30	<1.5	<0.44	30	N1501/N1550	02/20/2019

RL = Reporting Limit

Client ID:	MRD190037A	Matrix:	Passive Monitor
Maxxam ID:	IZW372	Sample Media:	3M 3520 Monitor, 2 Charcoal
Date Sampled:	02/17/2019	Sampling Time (Minutes):	550

ANALYTE	Samp Rate cc/min	Mass ug	Concentration mg/m3	Concentration ppm	RL ug	Test Method	Date Analyzed
Benzene	35.5	<1.0	<0.051	<0.016	1.0	N1501/N1550	02/20/2019
Hexane	32.0	<2.0	<0.11	<0.032	2.0	NOV SOP-00005	02/20/2019
Toluene	31.4	<3.0	<0.17	<0.046	3.0	N1501/N1550	02/20/2019
Xylenes	27.3	<6.0	<0.40	<0.092	6.0	N1501/N1550	02/20/2019
THCs as n-Hexane	32.0	<30	<1.7	<0.48	30	N1501/N1550	02/20/2019

RL = Reporting Limit

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MARATHON PETROLEUM

ANALYTICAL RESULTS

Client ID:	MRD190038A	Matrix:	Passive Monitor
Maxxam ID:	IZW373	Sample Media:	3M 3520 Monitor, 2 Charcoal
Date Sampled:	02/17/2019	Sampling Time (Minutes):	570

ANALYTE	Samp Rate cc/min	Mass ug	Concentration mg/m3	Concentration ppm	RL ug	Test Method	Date Analyzed
Benzene	35.5	<1.0	<0.049	<0.015	1.0	N1501/N1550	02/20/2019
Hexane	32.0	<2.0	<0.11	<0.031	2.0	NOV SOP-00005	02/20/2019
Toluene	31.4	<3.0	<0.17	<0.044	3.0	N1501/N1550	02/20/2019
Xylenes	27.3	<6.0	<0.39	<0.089	6.0	N1501/N1550	02/20/2019
THCs as n-Hexane	32.0	<30	<1.6	<0.47	30	N1501/N1550	02/20/2019

RL = Reporting Limit

Client ID:	MRD190039A	Matrix:	Passive Monitor
Maxxam ID:	IZW374	Sample Media:	3M 3520 Monitor, 2 Charcoal
Date Sampled:	02/17/2019	Sampling Time (Minutes):	559

ANALYTE	Samp Rate cc/min	Mass ug	Concentration mg/m3	Concentration ppm	RL ug	Test Method	Date Analyzed
Benzene	35.5	<1.0	<0.050	<0.016	1.0	N1501/N1550	02/20/2019
Hexane	32.0	<2.0	<0.11	<0.032	2.0	NOV SOP-00005	02/20/2019
Toluene	31.4	<3.0	<0.17	<0.045	3.0	N1501/N1550	02/20/2019
Xylenes	27.3	<6.0	<0.39	<0.091	6.0	N1501/N1550	02/20/2019
THCs as n-Hexane	32.0	<30	<1.7	<0.48	30	N1501/N1550	02/20/2019

RL = Reporting Limit

Client ID:	MRD190040A	Matrix:	Passive Monitor
Maxxam ID:	IZW375	Sample Media:	3M 3520 Monitor, 2 Charcoal
Date Sampled:	02/17/2019	Sampling Time (Minutes):	559

ANALYTE	Samp Rate cc/min	Mass ug	Concentration mg/m3	Concentration ppm	RL ug	Test Method	Date Analyzed
Benzene	35.5	<1.0	<0.050	<0.016	1.0	N1501/N1550	02/20/2019
Hexane	32.0	<2.0	<0.11	<0.032	2.0	NOV SOP-00005	02/20/2019
Toluene	31.4	<3.0	<0.17	<0.045	3.0	N1501/N1550	02/20/2019
Xylenes	27.3	<6.0	<0.39	<0.091	6.0	N1501/N1550	02/20/2019
THCs as n-Hexane	32.0	<30	<1.7	<0.48	30	N1501/N1550	02/20/2019

RL = Reporting Limit

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MARATHON PETROLEUM

ANALYTICAL RESULTS

Client ID:	MRD190041A	Matrix:	Passive Monitor
Maxxam ID:	IZW376	Sample Media:	3M 3520 Monitor, 2 Charcoal
Date Sampled:	02/17/2019	Sampling Time (Minutes):	558

ANALYTE	Samp Rate cc/min	Mass ug	Concentration mg/m3	Concentration ppm	RL ug	Test Method	Date Analyzed
Benzene	35.5	<1.0	<0.050	<0.016	1.0	N1501/N1550	02/20/2019
Hexane	32.0	<2.0	<0.11	<0.032	2.0	NOV SOP-00005	02/20/2019
Toluene	31.4	<3.0	<0.17	<0.045	3.0	N1501/N1550	02/20/2019
Xylenes	27.3	<6.0	<0.39	<0.091	6.0	N1501/N1550	02/20/2019
THCs as n-Hexane	32.0	<30	<1.7	<0.48	30	N1501/N1550	02/20/2019

RL = Reporting Limit

Client ID:	BLANK (FOR MRD190035A AND MRD190037A)	Matrix:	Passive Monitor
Maxxam ID:	IZW377	Sample Media:	3M 3520 Monitor, 2 Charcoal
Date Sampled:	02/17/2019		

ANALYTE	Samp Rate cc/min	Mass ug	Concentration mg/m3	Concentration ppm	RL ug	Test Method	Date Analyzed
Benzene	35.5	<1.0	N/A	N/A	1.0	N1501/N1550	02/20/2019
Hexane	32.0	<2.0	N/A	N/A	2.0	NOV SOP-00005	02/20/2019
Toluene	31.4	<3.0	N/A	N/A	3.0	N1501/N1550	02/20/2019
Xylenes	27.3	<6.0	N/A	N/A	6.0	N1501/N1550	02/20/2019
THCs as n-Hexane	32.0	<30	N/A	N/A	30	N1501/N1550	02/20/2019

RL = Reporting Limit

Client ID:	BLANK (FOR ALL OTHERS)	Matrix:	Passive Monitor
Maxxam ID:	IZW378	Sample Media:	3M 3520 Monitor, 2 Charcoal
Date Sampled:	02/17/2019		

ANALYTE	Samp Rate cc/min	Mass ug	Concentration mg/m3	Concentration ppm	RL ug	Test Method	Date Analyzed
Benzene	35.5	<1.0	N/A	N/A	1.0	N1501/N1550	02/20/2019
Hexane	32.0	<2.0	N/A	N/A	2.0	NOV SOP-00005	02/20/2019
Toluene	31.4	<3.0	N/A	N/A	3.0	N1501/N1550	02/20/2019
Xylenes	27.3	<6.0	N/A	N/A	6.0	N1501/N1550	02/20/2019
THCs as n-Hexane	32.0	<30	N/A	N/A	30	N1501/N1550	02/20/2019

RL = Reporting Limit

GENERAL COMMENTS

Unless otherwise noted below the following statements apply: 1) all samples were received in acceptable condition, 2) all quality control results associated with this sample set were within acceptable limits and /or do not adversely affect the reported results and 3) the industrial hygiene results have not been blank corrected.

Results relate only to the items tested.

Maxxam

Bureau Veritas North America, Inc.

REQUEST FOR LABORATORY ANALYTICAL SERVICES

IMPORTANT: Date Results Required: ASAP

Rush Charges Authorized? Yes [X] No [ ]

Fax [ ] or E-mail results [X]

E-mail Address: amstyes@marathonpetroleum.com

Page: _____

For Lab Use Only
Lab Project No. B942999

REPORT RESULTS TO: **Client Project No.:** _____

Name: Amanda Styes
Company: Marathon Petroleum
Mailing Address: 1001 S. Oakwood Dr
City, State, Zip: Detroit, MI 48217
Telephone No.: 313-297-6041 Fax No.: _____

Special instructions and/or specific regulatory requirements (method, limit of detection, etc.):

SEND INVOICE TO: **P.O. #** _____

Name:
Company:
Address:
City, State, Zip:
Email for Invoice:

If samples are water or soil - Collected from which state/province?

Client Sample Identification	Date Sampled	Time Sampled (min)	Matrix/ Media	Air Volume (specify units)	ANALYSIS REQUESTED (List each analyte on the lines below, multiple analytes per line)
MRD190032A	2/17/2019	605	3M 3520		C6BTX
MRD190033A	2/17/2019	664	3M 3520		C6BTX
MRD190034A	2/17/2019	482	3M 3520		C6BTX
MRD190035A	2/17/2019	615	3M 3520		C6BTX
MRD190036A	2/17/2019	605	3M 3520		C6BTX
MRD190037A	2/17/2019	550	3M 3520		C6BTX
MRD190038A	2/17/2019	570	3M 3520		C6BTX
MRD190039A	2/17/2019	559	3M 3520		C6BTX
MRD190040A	2/17/2019	559	3M 3520		C6BTX
MRD190041A	2/17/2019	558	3M 3520		C6BTX
BLANK (for MRD190035A and MRD190037A)	2/17/2019	0	3M 3520		C6BTX
Blank (for all others)	2/17/2019	0	3M 3520		C6BTX

Collected by: AMStyes *Date/Time* 2/18/2019 *Collector's Signature:* AMStyes *Date/Time* 2/18/2019

Relinquished by: AMStyes *Date/Time* 2/18/19 *Received by:* _____ *Date/Time* _____

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

Method of Shipment: _____ *Sample Condition on Receipt:* _____

Authorized by: _____ *Acceptable* _____ *Other:* _____

(Signature MUST accompany request!) *(Explain)*

Ship to:

Detroit Lab
22345 Roethel Drive
Novi, MI 48375
248.344.2652 or 800.806.5887

Atlanta Lab
3380 Chastain Meadows Pkwy., Ste 300
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Visit Us at **MaxxamLabs.com**

June 2017