

**Attention: Amanda Styes**

MARATHON PETROLEUM  
1001 South Oakwood Drive  
Detroit, MI  
USA 48217

**Report Date: 02/05/2019**

**Report #: R5583138**

**Version: 1 - Final**

**ANALYTICAL REPORT**

**MAXXAM JOB #: B930028**

**Received: 02/04/2019, 00:00**

Sample Matrix: Passive Monitor  
# Samples Received: 9

Analyses	Quantity	Date Analyzed	Laboratory Method	Reference
BTEX / THCs by NIOSH, GC-FID - 3520M	9	02/05/2019	NOV SOP-00005	N1501/N1550
Volatiles (VOC) - List 1-GC/FID-3M3520	9	02/05/2019	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**

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.

### ANALYTICAL RESULTS

Client ID: MRD190001A				Matrix: Passive Monitor			
Maxxam ID: IXE230				Sample Media: 3M 3520 Monitor, 2 Charcoal			
Date Sampled: 02/03/2019				Sampling Time (Minutes): 585			
		Samp Rate	Mass	Concentration		RL	Date
ANALYTE		cc/min	ug	mg/m3	ppm	ug	Test Method Analyzed
Benzene		35.5	<1.0	<0.048	<0.015	1.0	N1501/N1550 02/05/2019
Hexane		32.0	<2.0	<0.11	<0.030	2.0	NOV SOP-00005 02/05/2019
Toluene		31.4	<3.0	<0.16	<0.043	3.0	N1501/N1550 02/05/2019
Xylenes		27.3	<6.0	<0.38	<0.087	6.0	N1501/N1550 02/05/2019
THCs as n-Hexane		32.0	<30	<1.6	<0.45	30	N1501/N1550 02/05/2019
RL = Reporting Limit							

Client ID: MRD190002A				Matrix: Passive Monitor		
Maxxam ID: IXE231				Sample Media: 3M 3520 Monitor, 2 Charcoal		
Date Sampled: 02/03/2019				Sampling Time (Minutes): 582		
	Samp Rate	Mass	Concentration		RL	Date
ANALYTE	cc/min	ug	mg/m3	ppm	ug	Test Method Analyzed
Benzene	35.5	<1.0	<0.048	<0.015	1.0	N1501/N1550 02/05/2019
Hexane	32.0	<2.0	<0.11	<0.030	2.0	NOV SOP-00005 02/05/2019
Toluene	31.4	<3.0	<0.16	<0.044	3.0	N1501/N1550 02/05/2019
Xylenes	27.3	<6.0	<0.38	<0.087	6.0	N1501/N1550 02/05/2019
THCs as n-Hexane	32.0	<30	<1.6	<0.46	30	N1501/N1550 02/05/2019
RL = Reporting Limit						

Client ID: MRD190003A				Matrix: Passive Monitor			
Maxxam ID: IXE232				Sample Media: 3M 3520 Monitor, 2 Charcoal			
Date Sampled: 02/03/2019				Sampling Time (Minutes): 525			
ANALYTE		Samp Rate cc/min	Mass ug	Concentration mg/m3      ppm	RL ug	Test Method	Date Analyzed
Benzene		35.5	<1.0	<0.054      <0.017	1.0	N1501/N1550	02/05/2019
Hexane		32.0	<2.0	<0.12      <0.034	2.0	NOV SOP-00005	02/05/2019
Toluene		31.4	<3.0	<0.18      <0.048	3.0	N1501/N1550	02/05/2019
Xylenes		27.3	<6.0	<0.42      <0.096	6.0	N1501/N1550	02/05/2019
THCs as n-Hexane		32.0	<30	<1.8      <0.51	30	N1501/N1550	02/05/2019
RL = Reporting Limit							

### ANALYTICAL RESULTS

Client ID:	MRD190004A	Matrix:	Passive Monitor
Maxxam ID:	IXE233	Sample Media:	3M 3520 Monitor, 2 Charcoal
Date Sampled:	02/03/2019	Sampling Time (Minutes):	545

Client ID: MRD190005A				Matrix: Passive Monitor			
Maxxam ID: IXE234				Sample Media: 3M 3520 Monitor, 2 Charcoal			
Date Sampled: 02/03/2019				Sampling Time (Minutes): 636			
		Samp Rate	Mass	Concentration		RL	Date
ANALYTE		cc/min	ug	mg/m3	ppm	ug	Test Method Analyzed
Benzene		35.5	<1.0	<0.044	<0.014	1.0	N1501/N1550 02/05/2019
Hexane		32.0	<2.0	<0.098	<0.028	2.0	NOV SOP-00005 02/05/2019
Toluene		31.4	<3.0	<0.15	<0.040	3.0	N1501/N1550 02/05/2019
Xylenes		27.3	<6.0	<0.35	<0.080	6.0	N1501/N1550 02/05/2019
THCs as n-Hexane		32.0	<30	<1.5	<0.42	30	N1501/N1550 02/05/2019
RL = Reporting Limit							

Client ID: MRD190006A				Matrix: Passive Monitor			
Maxxam ID: IXE235				Sample Media: 3M 3520 Monitor, 2 Charcoal			
Date Sampled: 02/03/2019				Sampling Time (Minutes): 607			
ANALYTE		Samp Rate cc/min	Mass ug	Concentration mg/m3 ppm	RL ug	Test Method	Date Analyzed
Benzene		35.5	<1.0	<0.046 <0.015	1.0	N1501/N1550	02/05/2019
Hexane		32.0	<2.0	<0.10 <0.029	2.0	NOV SOP-00005	02/05/2019
Toluene		31.4	<3.0	<0.16 <0.042	3.0	N1501/N1550	02/05/2019
Xylenes		27.3	<6.0	<0.36 <0.083	6.0	N1501/N1550	02/05/2019
THCs as n-Hexane		32.0	<30	<1.5 <0.44	30	N1501/N1550	02/05/2019
RL = Reporting Limit							

### ANALYTICAL RESULTS

Client ID: MRD190007A				Matrix: Passive Monitor			
Maxxam ID: IXE236				Sample Media: 3M 3520 Monitor, 2 Charcoal			
Date Sampled: 02/03/2019				Sampling Time (Minutes): 620			
		Samp Rate	Mass	Concentration		RL	Date
ANALYTE		cc/min	ug	mg/m3	ppm	ug	Test Method Analyzed
Benzene		35.5	<1.0	<0.045	<0.014	1.0	N1501/N1550 02/05/2019
Hexane		32.0	<2.0	<0.10	<0.029	2.0	NOV SOP-00005 02/05/2019
Toluene		31.4	<3.0	<0.15	<0.041	3.0	N1501/N1550 02/05/2019
Xylenes		27.3	<6.0	<0.35	<0.082	6.0	N1501/N1550 02/05/2019
THCs as n-Hexane		32.0	<30	<1.5	<0.43	30	N1501/N1550 02/05/2019
RL = Reporting Limit							

Client ID: MRD190008A				Matrix: Passive Monitor			
Maxxam ID: IXE237				Sample Media: 3M 3520 Monitor, 2 Charcoal			
Date Sampled: 02/03/2019				Sampling Time (Minutes): 561			
		Samp Rate	Mass	Concentration		RL	Date
ANALYTE		cc/min	ug	mg/m3	ppm	ug	Test Method Analyzed
Benzene		35.5	<1.0	<0.050	<0.016	1.0	N1501/N1550 02/05/2019
Hexane		32.0	<2.0	<0.11	<0.032	2.0	NOV SOP-00005 02/05/2019
Toluene		31.4	<3.0	<0.17	<0.045	3.0	N1501/N1550 02/05/2019
Xylenes		27.3	<6.0	<0.39	<0.090	6.0	N1501/N1550 02/05/2019
THCs as n-Hexane		32.0	<30	<1.7	<0.47	30	N1501/N1550 02/05/2019
RL = Reporting Limit							

Client ID:	MRD190009BLANK	Matrix:	Passive Monitor				
Maxxam ID:	IXE238	Sample Media:	3M 3520 Monitor, 2 Charcoal				
Date Sampled: 02/03/2019							
	Samp Rate	Mass	Concentration	RL		Date	
ANALYTE	cc/min	ug	mg/m3	ppm	ug	Test Method	Analyzed
Benzene	35.5	<1.0	N/A	N/A	1.0	N1501/N1550	02/05/2019
Hexane	32.0	<2.0	N/A	N/A	2.0	NOV SOP-00005	02/05/2019
Toluene	31.4	<3.0	N/A	N/A	3.0	N1501/N1550	02/05/2019
Xylenes	27.3	<6.0	N/A	N/A	6.0	N1501/N1550	02/05/2019
THCs as n-Hexane	32.0	<30	N/A	N/A	30	N1501/N1550	02/05/2019
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.**



Bureau Veritas North America, Inc.  
REQUEST FOR LABORATORY ANALYTICAL SERVICES

**IMPORTANT:**

Date Results Required: ASAP

Page: \_\_\_\_\_

Rush Charges Authorized? Yes ☒ No ☐

Fax ☐ or E-mail results ☒

E-mail Address: amstyes@marathonpetroleum.com

For Lab Use Only

Lab Project No. B930028

**REPORT RESULTS TO:**

Client Project No.: \_\_\_\_\_

**SEND INVOICE TO:**

P.O. # \_\_\_\_\_

Name Amanda Styes

Name \_\_\_\_\_

Company Marathon Petroleum

Company \_\_\_\_\_

Mailing Address 1001 S. Oakwood Dr

Address \_\_\_\_\_

City, State, Zip Detroit, MI 48217

City, State, Zip \_\_\_\_\_

Telephone No. 313-297-6041

Fax No. \_\_\_\_\_

Email for Invoice \_\_\_\_\_

Special instructions and/or

specific regulatory

requirements (method, limit of

detection, etc.): \_\_\_\_\_

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)
MRD190001A	2/3/19	585	3M 3520		C6BTX
MRD190002A	2/3/19	582	3M 3520		C6BTX
MRD190003A	2/3/19	525	3M 3520		C6BTX
MRD190004A	2/3/19	545	3M 3520		C6BTX
MRD190005A	2/3/19	636	3M 3520		C6BTX
MRD190006A	2/3/19	607	3M 3520		C6BTX
MRD190007A	2/3/19	620	3M 3520		C6BTX
MRD190008A	2/3/19	561	3M 3520		C6BTX
MRD190009Blank	2/3/19	0	3M 3520		C6BTX

Collected by: AMStyes

Date/Time 2/3/2019

Collector's Signature: AMStyes

Date/Time 2/3/2019

Relinquished by: AMStyes

Date/Time 2/4/19

Received by: Mon

Date/Time 2/4/19 2:05

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

Kennesaw, GA 30144

770.499.7701 or 800.252.9919

Canadian Clients

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Windsor, ON N8X 1Z1

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June 2017