

tration [DLQ001:OMB # 2060-0566 Expires 9/30/2005]

Test Method

Name of Method:

Organization ID No.:

Laboratory Identification

Laboratory Name:

Street Address:

Laboratory City:

Laboratory State:

Laboratory Zip code:

Contact Person:

Phone Number

Fax Number

E-mail Address

Confidential Business Information Claim. A company may assert a business confidentiality claim covering the

15 ppm Sulfur Precision Criterion - a standard deviation less than 0.72 ppm, computed from the results of a min

Is 15 ppm SulfuREQUIRED DATA MISSING

Standard deviationREQUIRED DATA MISSING

Test Identificati	Date	Time	Test Result (ppm)	QC Check on Test Result
				DATA REQUIRED IN CELL D20
				DATA REQUIRED IN CELL D21
				DATA REQUIRED IN CELL D22
				DATA REQUIRED IN CELL D23
				DATA REQUIRED IN CELL D24
				DATA REQUIRED IN CELL D25
				DATA REQUIRED IN CELL D26
				DATA REQUIRED IN CELL D27
				DATA REQUIRED IN CELL D28
				DATA REQUIRED IN CELL D29
				DATA REQUIRED IN CELL D30
				DATA REQUIRED IN CELL D31
				DATA REQUIRED IN CELL D32
				DATA REQUIRED IN CELL D33
				DATA REQUIRED IN CELL D34
				DATA REQUIRED IN CELL D35
				DATA REQUIRED IN CELL D36
				DATA REQUIRED IN CELL D37
				DATA REQUIRED IN CELL D38
				DATA REQUIRED IN CELL D39

information contained in this submission. If no such claim is made the information may be made available to the minimum of 20 repeat tests made over 20 days on samples taken from a single homogenous commercially available

e public by EPA without further notice. All questions of confidentiality will be handled pursuant to 40 CFR Part 170. Diesel fuel with a sulfur range of 5 to 15 ppm. The 20 results must be a series of tests with a sequential record of

t 2. Is confidentiality claimed for the information in this submission? (Note: Please answer by typing "Yes" or "No" if the analyses and no omissions. Samples or results may be excluded only if for valid reason under good labora

"No" in the adjacent cell.)  
tory practices & records are maintained for reason of exclusion.

tration [DLQ001:OMB # 2060-0566 Expires 9/30/2005]

Test Method

Name of Method: 0  
 Organization ID No.: 0  
 Laboratory Identification  
 Laboratory Name: 0  
 Street Address: 0  
 Laboratory City: 0  
 Laboratory State: 0  
 Laboratory Zip code: 0  
 Contact Person: 0  
 Phone Number: 0  
 Accession Number: 0  
 E-mail Address: 0

Confidential Business Information Claim. A company may assert a business confidentiality claim covering the  
 1 to 10 ppm Accuracy Criterion - the arithmetic average of a continuous series of at least 10 tests performed on a  
 Accuracy Criterion for 1-10 ppm Accuracy  
 gravimetric sulfur standard gravimetric

Is 1-10 ppm Sulfur Accuracy Criterion (REQUIRED DATA MISSING) Arith  
 Vendor Name  
 Number of Gravimetric Standard Concentration QC Check on ARV Lot Identification  
 Concentration of Gravimetric Standard (ppm) ARV TOO LOW IN CONCENTRATION Value  
 Arithmetic Average and Difference between Arithmetic  
 Test Identification Date Time Test Result (ppm) QC Check on Test Result Laboratory

DATA REQUIRED IN CELL D26  
 DATA REQUIRED IN CELL D27  
 DATA REQUIRED IN CELL D28  
 DATA REQUIRED IN CELL D29  
 DATA REQUIRED IN CELL D30  
 DATA REQUIRED IN CELL D31  
 DATA REQUIRED IN CELL D32  
 DATA REQUIRED IN CELL D33  
 DATA REQUIRED IN CELL D34  
 DATA REQUIRED IN CELL D35

information contained in this submission. If no such claim is made the information may be made available to the  
10 to 20 ppm Accuracy Criterion - the arithmetic average of a continuous series of at least 10 tests performed on  
Accuracy Criterion for 10-20 ppm

Gravimetric sulfur standard

Is 10-20 ppm Sulfur Standard (REQUIRED DATA MISSING)

Arithmetic Average (REQUIRED DATA MISSING)

Number of Gravimetric Standard

Number of Gravimetric Standard

Accuracy (ARV) of Gravimetric Standard (ppm)

Arithmetic Average and Accuracy (REQUIRED DATA MISSING)

Test Identification

Date

Time

Test Result (ppm)

Concentration QC Check on ARV

ARV TOO LOW IN CONCENTRATION

QC Check on Test Result

DATA REQUIRED IN CELL J26

DATA REQUIRED IN CELL J27

DATA REQUIRED IN CELL J28

DATA REQUIRED IN CELL J29

DATA REQUIRED IN CELL J30

DATA REQUIRED IN CELL J31

DATA REQUIRED IN CELL J32

DATA REQUIRED IN CELL J33

DATA REQUIRED IN CELL J34

DATA REQUIRED IN CELL J35

e public by EPA without further notice. All questions of confidentiality will be handled pursuant to 40 CFR Part 161.10. A commercially available gravimetric sulfur standard in the range of 10 to 20 ppm sulfur shall not differ from the



t 2. Is confidentiality claimed for the information in this submission? (Note: Please answer by typing "Yes" or 'ie accepted reference value (ARV) of that standard by more than 0.54 ppm. Individual test results shall be comp

"No" in the adjacent cell.)  
ensated for any known chemical interferences.

ration [DLQ001:OMB # 2060-0566 Expires 9/30/2005]

Test Method

Name of Method:

Organization ID No.:

Laboratory Identification

Laboratory Name:

Street Address:

Laboratory City:

Laboratory State:

Laboratory Zip code:

Contact Person:

Phone Number

Fax Number

E-mail Address

Confidential Business Information Claim. A company may assert a business confidentiality claim covering the

500 ppm Sulfur Precision Criterion - a standard deviation less than 0.72 ppm, computed from the results of a mi

Is 500 ppm SulfREQUIRED DATA MISSING

standard deviatioREQUIRED DATA MISSING

Test Identificati	Date	Time	Test Result (ppm)	QC Check on Test Result
				DATA REQUIRED IN CELL D20
				DATA REQUIRED IN CELL D21
				DATA REQUIRED IN CELL D22
				DATA REQUIRED IN CELL D23
				DATA REQUIRED IN CELL D24
				DATA REQUIRED IN CELL D25
				DATA REQUIRED IN CELL D26
				DATA REQUIRED IN CELL D27
				DATA REQUIRED IN CELL D28
				DATA REQUIRED IN CELL D29
				DATA REQUIRED IN CELL D30
				DATA REQUIRED IN CELL D31
				DATA REQUIRED IN CELL D32
				DATA REQUIRED IN CELL D33
				DATA REQUIRED IN CELL D34
				DATA REQUIRED IN CELL D35
				DATA REQUIRED IN CELL D36
				DATA REQUIRED IN CELL D37
				DATA REQUIRED IN CELL D38
				DATA REQUIRED IN CELL D39

information contained in this submission. If no such claim is made the information may be made available to the minimum of 20 repeat tests made over 20 days on samples taken from a single homogenous commercially available

e public by EPA without further notice. All questions of confidentiality will be handled pursuant to 40 CFR Part 170.104. The 20 results must be a series of tests with a sequential record of diesel fuel with a sulfur range of 5 to 15 ppm.

t 2. Is confidentiality claimed for the information in this submission? (Note: Please answer by typing "Yes" or ' of the analyses and no omissions. Samples or results may be excluded only if for valid reason under good labor

"No" in the adjacent cell.)  
atory practices & records are maintained for reason of exclusion.

stration [DLQ001:OMB # 2060-0566 Expires 9/30/2005]

Test Method

Name of Method: 0
Organization ID No.: 0
Laboratory Identification
Laboratory Name: 0
Street Address: 0
Laboratory City: 0
Laboratory State: 0
Laboratory Zip code: 0
Contact Person: 0
Phone Number: 0
Accession Number: 0
E-mail Address: 0

Confidential Business Information Claim. A company may assert a business confidentiality claim covering the
100 to 200 ppm Accuracy Criterion - the arithmetic average of a continuous series of at least 10 tests performed
Accuracy Criterion for 100-200 ppm
Gravimetric sulfur standard Accuracy Criterion

Is 100-200 ppm REQUIRED DATA MISSING
Arithmetic Average (ppm) REQUIRED DATA MISSING
Arithmetic Average of Gravimetric Standard: Vendor Name

Number of Gravimetric Standard: Concentration QC Check on ARV Lot Identification
Concentration of Gravimetric Standard (ppm): ARV TOO LOW IN CONCENTRATION
Concentration of Gravimetric Standard (ppm) REQUIRED DATA MISSING
Concentration of Gravimetric Standard (ppm) REQUIRED DATA MISSING
Difference between Arithmetic Average and Gravimetric Standard (ppm)

Table with 7 columns: Test Identification, Date, Time, Test Result (ppm), QC Check on Test Result, Laboratory, and Difference between Arithmetic Average and Gravimetric Standard (ppm). Rows 1-10 contain 'DATA REQUIRED IN CELL D26' through 'DATA REQUIRED IN CELL D35'.



information contained in this submission. If no such claim is made the information may be made available to the public. Accuracy Criterion - the arithmetic average of a continuous series of at least 10 tests performed on a gravimetric sulfur standard

Accuracy Criterion for 400-500 ppm

Is 400-500 ppm REQUIRED DATA MISSING

Arithmetic Average (REQUIRED DATA MISSING)

Number of Gravimetric Standard

Number of Gravimetric Standard

Arithmetic Average (ARV) of Gravimetric Standard (ppm)

Arithmetic Average and Standard Deviation (REQUIRED DATA MISSING)

Test Identification

Date

Time

Test Result (ppm)

Concentration QC Check on ARV

ARV TOO LOW IN CONCENTRATION

QC Check on Test Result

DATA REQUIRED IN CELL J26

DATA REQUIRED IN CELL J27

DATA REQUIRED IN CELL J28

DATA REQUIRED IN CELL J29

DATA REQUIRED IN CELL J30

DATA REQUIRED IN CELL J31

DATA REQUIRED IN CELL J32

DATA REQUIRED IN CELL J33

DATA REQUIRED IN CELL J34

DATA REQUIRED IN CELL J35

e public by EPA without further notice. All questions of confidentiality will be handled pursuant to 40 CFR Part 101.11. The test method for sulfur shall be based on a commercially available gravimetric sulfur standard in the range of 400 to 500 ppm sulfur shall not differ from

t 2. Is confidentiality claimed for the information in this submission? (Note: Please answer by typing "Yes" or "No".) If the answer is "Yes", please provide the accepted reference value (ARV) of that standard by more than 7.26 ppm. Individual test results shall be reported as follows:

"No" in the adjacent cell.)  
compensated for any known chemical interferences.

ration [DLQ001:OMB # 2060-0566 Expires 9/30/2005]

Test Method

Name of Method: Total Sulfur in Liquid Aromatic Hydrocarbons and Their Derivatives by Oxidative and Electrodeposition  
Standardization ID No.: ASTM D 6428-99

Laboratory Identification

Laboratory Name: USEPA National and Vehicle Fuels Emissions Laboratory/OAR

Street Address: 2565 Plymouth Road, Mailcode AATSG

Laboratory City: Ann Arbor

Laboratory State: Michigan

Laboratory Zip code: 48105

Contact Person: Joe Sopata

Phone Number: 202-343-9034

Facsimile Number: 202-343-2801

E-mail Address: sopata.joe@epa.gov

Confidential Business Information Claim. A company may assert  No

15 ppm Sulfur Precision Criterion - a standard deviation less than 0.72 ppm, computed from the results of a minimum of 15 ppm Sulfur **PASSED**

Standard deviation: 0.03920338

Test Identification	Date	Time	Test Result (ppm)	QC Check on Test Result
#####	38286	0.33333333	6.003	OK
#####	38287	0.33402778	6.021	OK
#####	38288	0.34722222	6.043	OK
#####	38289	0.34930556	5.993	OK
#####	38290	0.375	6.003	OK
#####	38292	0.38194444	6.092	OK
#####	38293	0.38888889	6.101	OK
#####	38294	0.39583333	6.045	OK
#####	38296	0.40277778	6.003	OK
#####	38297	0.40972222	6.021	OK
#####	38298	0.41666667	5.989	OK
#####	38299	0.42361111	5.962	OK
#####	38300	0.43055556	6.01	OK
#####	38301	0.4375	6.032	OK
#####	38302	0.44444444	6.053	OK
#####	38303	0.45138889	6.05	OK
#####	38304	0.45833333	5.989	OK
#####	38305	0.46527778	6.033	OK
#####	38306	0.47222222	5.939	OK
#####	38307	0.47916667	6.042	OK

hemical Detection

imum of 20 repeat tests made over 20 days on samples taken from a single homogenous commercially available

diesel fuel with a sulfur range of 5 to 15 ppm. The 20 results must be a series of tests with a sequential record o

if the analyses and no omissions. Samples or results may be excluded only if for valid reason under good labora



tory practices & records are maintained for reason of exclusion.

Expiration [DLQ001:OMB # 2060-0566 Expires 9/30/2005]

Test Method

Name of Method: Total Sulfur in Liquid Aromatic Hydrocarbons and Their Derivatives by Oxidative and Elution  
Standardization ID No.: ASTM D 6428-99

Laboratory Identification

Laboratory Name: USEPA National and Vehicle Fuels Emissions Laboratory/OAR

Street Address: 2565 Plymouth Road, Mailcode AATSG

Laboratory City: Ann Arbor

Laboratory State: Michigan

Laboratory Zip code: 48105

Contact Person: Joe Sopata

Phone Number: 202-343-9034

Fax Number: 202-343-2801

E-mail Address: sopata.joe@epa.gov

Confidential Business Information Claim. A company may assert a business confidentiality claim covering the test results.

Accuracy Criterion - the arithmetic average of a continuous series of at least 10 tests performed on a gravimetric sulfur standard

Accuracy Criterion for 1-10 ppm

Is 1-10 ppm Sulfur PASSED

Arithmetic Average (ppm) 7.9485

Method of Gravimetry NIST

Number of Gravimetric Measurements ALDS45678

Concentration QC Check on ARV OK

Lot Identification Accepted Reference Value

Difference between Arithmetic Average and Reference Value 0.0515

Test Identification	Date	Time	Test Result (ppm)	QC Check on Test Result	Laboratory
#####	38365	0.33333333	7.341	OK	
#####	38365	0.35416667	7.562	OK	
#####	38365	0.375	7.894	OK	
#####	38365	0.39583333	8.219	OK	
#####	38365	0.41666667	8.234	OK	
#####	38365	0.4375	8.1	OK	
#####	38365	0.45833333	8.114	OK	
#####	38365	0.47916667	7.989	OK	
#####	38365	0.5	7.687	OK	
#####	38365	0.52083333	8.345	OK	

Electrochemical Detection

information con No  
 10 to 20 ppm Accuracy Criterion - the arithmetic average of a continuous series of at least 10 tests performed on  
 r Criterion for 10-20 ppm  
 metric sulfur standard  
 Is 10-20 ppm StPASSED  
 metic Average ( 13.9075  
 ne of Gravimetr NIST  
 Number of Gra ALDS53478 Concentration QC Check on ARV  
 ie (ARV) of Gra 13.5 OK  
 ic Average and t 0.4075

Test Identificati	Date	Time	Test Result (ppm)	QC Check on Test Result
#####	38366	0.33333333	13.239	OK
#####	38366	0.35416667	14.231	OK
#####	38366	0.375	13.899	OK
#####	38366	0.39583333	14.035	OK
#####	38366	0.41666667	14.001	OK
#####	38366	0.4375	13.98	OK
#####	38366	0.45833333	13.211	OK
#####	38366	0.47916667	14.345	OK
#####	38366	0.5	13.678	OK
#####	38366	0.52083333	14.456	OK

a commercially available gravimetric sulfur standard in the range of 10 to 20 ppm sulfur shall not differ from th

ie accepted reference value (ARV) of that standard by more than 0.54 ppm. Individual test results shall be comp

ensated for any known chemical interferences.

tration [DLQ001:OMB # 2060-0566 Expires 9/30/2005]

Test Method

ame of Method:Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-ray Fluore  
nization ID No.:ASTM D 2622-03

Laboratory Identification

boratory Name:USEPA National and Vehicle Fuels Emissions Laboratory/OAR

Street Address:2565 Plymouth Road, Mailcode AATSG

.aboratory City:Ann Arbor

aboratory State:Michigan

ratory Zip code: 48105

Contact Person:Joe Sopata

: Phone Number202-343-9034

csimile Number202-343-2801

E-mail Addresssopata.joe@epa.gov

Confidential Business Information Claim. A company may asse No

500 ppm Sulfur Precision Criterion - a standard deviation less than 0.72 ppm, computed from the results of a mi

Is 500 ppm SulfPASSED

tandard deviatio 4.49072274

Test Identificati	Date	Time	Test Result (ppm)	QC Check on Test Result
#####	38286	0.33333333	330.02	OK
#####	38287	0.33402778	331.23	OK
#####	38288	0.34722222	332.89	OK
#####	38289	0.34930556	334.59	OK
#####	38290	0.375	335.99	OK
#####	38292	0.38194444	328.35	OK
#####	38293	0.38888889	329.06	OK
#####	38294	0.39583333	330.10	OK
#####	38296	0.40277778	333.73	OK
#####	38297	0.40972222	335.09	OK
#####	38298	0.41666667	326.34	OK
#####	38299	0.42361111	328.90	OK
#####	38300	0.43055556	329.86	OK
#####	38301	0.4375	332.99	OK
#####	38302	0.44444444	334.00	OK
#####	38303	0.45138889	340.10	OK
#####	38304	0.45833333	341.10	OK
#####	38305	0.46527778	339.88	OK
#####	38306	0.47222222	338.77	OK
#####	38307	0.47916667	340.00	OK

science Spectrometry

nimum of 20 repeat tests made over 20 days on samples taken from a single homogenous commercially available



e diesel fuel with a sulfur range of 5 to 15 ppm. The 20 results must be a series of tests with a sequential record

of the analyses and no omissions. Samples or results may be excluded only if for valid reason under good labor

atory practices & records are maintained for reason of exclusion.

Registration [DLQ001:OMB # 2060-0566 Expires 9/30/2005]

Test Method

Name of Method:Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-ray  
Standardization ID No.:ASTM D 2622-03

Laboratory Identification

Laboratory Name:USEPA National and Vehicle Fuels Emissions Laboratory/OAR

Street Address:2565 Plymouth Road, Mailcode AATSG

Laboratory City:Ann Arbor

Laboratory State:Michigan

Laboratory Zip code: 48105

Contact Person:Joe Sopata

Phone Number202-343-9034

Fax Number202-343-2801

E-mail Addresssopata.joe@epa.gov

Confidential Business Information Claim. A company may assert a business confidentiality claim covering the

100 to 200 ppm Accuracy Criterion - the arithmetic average of a continuous series of at least 10 tests performed

Accuracy Criterion for 100-200 ppm Accuracy Criterion

Arithmetic sulfur standard Accuracy Criterion

Is 100-200 ppmPASSED

Arithmetic Average (ppm) 150.5643 Arithmetic Average

Reference Material NIST Vendor Name

Number of Gravimetric Tests AMD4567 Concentration QC Check on ARV Lot Identification

Accepted Reference Value OK Accepted Reference Value

Relative Standard Deviation 0.4357 Difference between Arithmetic

Test Identification Date Time Test Result (ppm) QC Check on Test Result Laboratory

Test Identification	Date	Time	Test Result (ppm)	QC Check on Test Result	Laboratory
#####	38365	0.33333333	150.00	OK	
#####	38365	0.35416667	150.03	OK	
#####	38365	0.375	150.10	OK	
#####	38365	0.39583333	149.65	OK	
#####	38365	0.41666667	148.50	OK	
#####	38365	0.4375	150.00	OK	
#####	38365	0.45833333	150.10	OK	
#####	38365	0.47916667	151.91	OK	
#####	38365	0.5	152.13	OK	
#####	38365	0.52083333	153.22	OK	

Fluorescence Spectrometry

information con No  
 400 to 500 ppm Accuracy Criterion - the arithmetic average of a continuous series of at least 10 tests performed  
 Criterion for 400-500 ppm  
 metric sulfur standard  
 Is 400-500 ppm PASSED  
 Arithmetic Average ( 498.3953  
 Name of Gravimetric NIST  
 Number of Gravimetric MNV5678 Concentration QC Check on ARV  
 Tests (ARV) of Gravimetric 500 OK  
 Relative Standard Deviation (RSD) 1.6047

Test Identification	Date	Time	Test Result (ppm)	QC Check on Test Result
#####	38366	0.33333333	499.98	OK
#####	38366	0.35416667	498.97	OK
#####	38366	0.375	496.451	OK
#####	38366	0.39583333	498.67	OK
#####	38366	0.41666667	495.98	OK
#####	38366	0.4375	497.56	OK
#####	38366	0.45833333	499.45	OK
#####	38366	0.47916667	497.89	OK
#####	38366	0.5	499.012	OK
#####	38366	0.52083333	499.99	OK

on a commercially available gravimetric sulfur standard in the range of 400 to 500 ppm sulfur shall not differ fr

om the accepted reference value (ARV) of that standard by more than 7.26 ppm. Individual test results shall be c

compensated for any known chemical interferences.