



**QatarEnergy LNG - Onshore Operations & Support  
North Laboratory**

**CORRELATION TEST - COMPARISON OF RESULTS**

*Wen*



*Handwritten signature and date 6/11/24*

Sample	: QatarEnergy LNG - CPC CORRELATION SAMPLE 2024
Sample Cylinder No.	: DA8002
Location	: QatarEnergy LNG - North Laboratory
Analysis Date	: 6-Nov-2024
Analyst	: ARIE EKO NUGROHO
Analysis Method	: GC, GPA 2261

COMPONENT	Unit	GC System used			Max-Min	Conclusion	Correlation Limit [GPA 2261-64]
		GC#42	GC#48	GC#49			
CH4	% MOL	92.810	92.830	92.810	0.02	OK	0.30
C2H6	% MOL	6.580	6.560	6.580	0.02	OK	0.10
C3H8	% MOL	0.090	0.090	0.090	0.00	OK	0.05
I-C4H10	% MOL	0.000	0.000	0.000	0.00	OK	0.03
N-C4H10	% MOL	0.000	0.000	0.000	0.00	OK	0.03
I-C5H12	% MOL	0.000	0.000	0.000	0.00	OK	0.03
N-C5H12	% MOL	0.000	0.000	0.000	0.00	OK	0.03
C6H14	% MOL	0.000	0.000	0.000	0.00	OK	0.03
N2	% MOL	0.520	0.520	0.520	0.00	OK	0.03
CO2	% MOL	0.000	0.000	0.000	0.00	OK	0.03
O2	% MOL	0.000	0.000	0.000	0.00	OK	0.03
<b>TOTAL</b>	<b>% MOL</b>	<b>100.000</b>	<b>100.000</b>	<b>100.000</b>			

**QATARENERGY LNG - LABORATORY DIVISION**

**LNG CARGO CALCULATION SHEET**

EQUIPMENT: GC-42

LNG vessel	CORRELATION TEST CPC 2024
Destination	-
Consignee	-

Cargo # :	CYL.# : DA8002
Loading ex Tank	-
Berth No.	-

	Sampling Date: 6-11-24	Sampling Time: 9:00				
<b>Component</b>	<b>LNG SHIPMENT SAMPLE</b>					
	Run 1		Run 2		Mean %N	
	ESTD	%N	ESTD	%N		
	N <sub>2</sub>	0.514	0.514	0.515	0.516	0.515
	C <sub>1</sub>	92.753	92.812	92.720	92.815	92.813
	C <sub>2</sub>	6.582	6.586	6.575	6.582	6.584
C <sub>3</sub>	0.088	0.088	0.087	0.087	0.088	
i-C <sub>4</sub>	0.000	0.000	0.000	0.000	0.000	
n-C <sub>4</sub>	0.000	0.000	0.000	0.000	0.000	
i-C <sub>5</sub>	0.000	0.000	0.000	0.000	0.000	
n-C <sub>5</sub>	0.000	0.000	0.000	0.000	0.000	
C <sub>6+</sub>	0.000	0.000	0.000	0.000	0.000	
CO <sub>2</sub>	0.000	0.000	0.000	0.000	0.000	
<b>Total</b>	<b>99.937</b>	<b>100.000</b>	<b>99.897</b>	<b>100.000</b>	<b>100.000</b>	
Analyzed by:		ARIE <i>[Signature]</i> 6/11/24				

Component	FINAL RESULT
	MOL %
N <sub>2</sub>	0.52
C <sub>1</sub>	92.81
C <sub>2</sub>	6.58
C <sub>3</sub>	0.09
i-C <sub>4</sub>	0.00
n-C <sub>4</sub>	0.00
i-C <sub>5</sub>	0.00
n-C <sub>5</sub>	0.00
C <sub>6+</sub>	0.00
CO <sub>2</sub>	0.00
<b>Total</b>	<b>100.00</b>

Total Sulfur	-	mg/M <sup>3</sup>
H <sub>2</sub> S	-	ppm mole

Approved by (Shift Chemist):  
*[Signature]*  
 6/11/24

*Wen*



Remark:  
 ESTD means concentration in external standard mode  
 % N means concentration in normalized mode to 100%  
 C1 is balance which is calculated from 100 subtracted by other components  
 C6+ and CO2 are calibrated separately (if required)

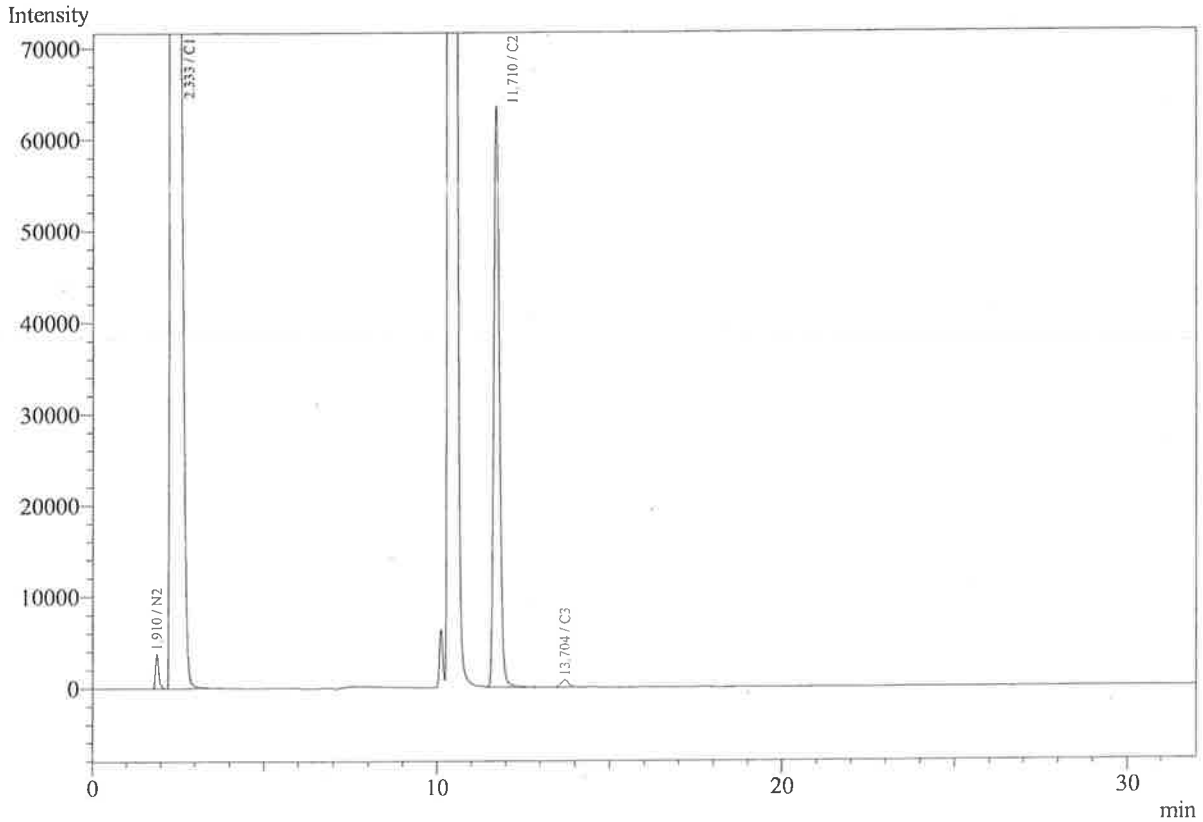


# QatarEnergy LNG

## Operations Support - North Lab

### GC # 42

Analysis Date & Time : 06/11/2024 9:59:02 AM  
User Name : Admin  
Sample Name : CORRELATION TEST CPC 2024  
Sample ID : CYL. # DA8002  
Sample Type : Unknown  
Data Name : C:\GCsolution\Data\11-2024\06112024-002.gcd  
Method Name : C:\GCsolution\Data\11-2024\LNG Loading.gcm  
Operator : ARIE



Peak#	Ret.Time	Area	Conc.	Unit	Cmpd Name
1	1.910	26170	0.5147	%	N2
2	2.333	3888324	92.7197	%	C1
3	11.710	729377	6.5748	%	C2
4	13.704	12087	0.0867	%	C3
Total		4655958	99.8959		



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Calibration Curve - Analytical Line 1 - Channel 1

ID#:1 Name:N2

MeanRF:1.96672156706e-005 RFSD:1.21015141414e-008 RFRSD:6.15314050759e-002

ID#:2 Name:C1

MeanRF:2.38456819829e-005 RFSD:5.99958623991e-009 RFRSD:2.5160053062e-002

ID#:3 Name:C2

MeanRF:9.01422103565e-006 RFSD:7.41995910796e-009 RFRSD:8.23139246155e-002

ID#:4 Name:C3

MeanRF:7.17116556491e-006 RFSD:8.65579007027e-009 RFRSD:0.120702694589

ID#:5 Name:i-C4

MeanRF:6.28569388318e-006 RFSD:3.67356257312e-008 RFRSD:0.584432306345

ID#:6 Name:n-C4

MeanRF:6.16806041086e-006 RFSD:1.93021197693e-008 RFRSD:0.31293662

ID#:7 Name:i-C5

MeanRF:5.59618151646e-006 RFSD:5.57814644524e-008 RFRSD:0.996777254068

ID#:8 Name:n-C5

MeanRF:5.5166510566e-006 RFSD:2.08602736248e-008 RFRSD:0.378132918155

[Calibration Information - Channel 1]

Data Files

Level : 1

C:\GCsolution\Data\11-2024\NEW CRM-23 03112024-001.gcd


C:\GCsolution\Data\11-2024\NEW CRM-23 03112024-002.gcd

Create Date : 03/11/2024 1:22:33 AM

Analyzed By

 6/11/24

Approved By

  
6/11/24



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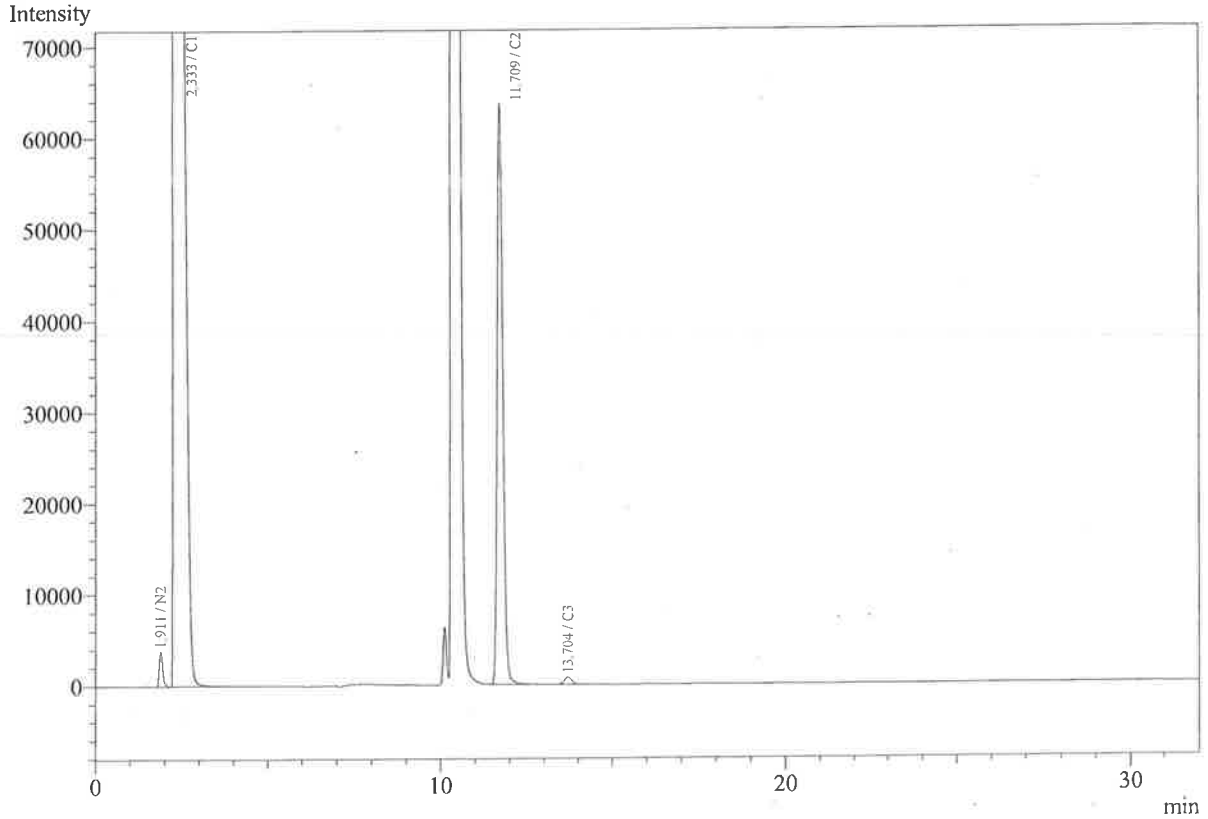


# QatarEnergy LNG

## Operations Support - North Lab

### GC # 42

Analysis Date & Time : 06/11/2024 9:19:06 AM  
User Name : Admin  
Sample Name : CORRELATION TEST CPC 2024  
Sample ID : CYL. # DA8002  
Sample Type : Unknown  
Data Name : C:\GCsolution\Data\11-2024\06112024-001.gcd  
Method Name : C:\GCsolution\Data\11-2024\LNG Loading.gcm  
Operator : ARIE



Peak#	Ret.Time	Area	Conc.	Unit	Cmpd Name
1	1.911	26155	0.5144	%	N2
2	2.333	3889720	92.7530	%	C1
3	11.709	730209	6.5823	%	C2
4	13.704	12196	0.0875	%	C3
Total		4658280	99.9372		

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6/11/24

Calibration Curve - Analytical Line 1 - Channel 1

ID#:1 Name:N2

MeanRF:1.96672156706e-005 RFSD:1.21015141414e-008 RFRSD:6.15314050759e-002

ID#:2 Name:C1

MeanRF:2.38456819829e-005 RFSD:5.99958623991e-009 RFRSD:2.5160053062e-002

ID#:3 Name:C2

MeanRF:9.01422103565e-006 RFSD:7.41995910796e-009 RFRSD:8.23139246155e-002

ID#:4 Name:C3

MeanRF:7.17116556491e-006 RFSD:8.65579007027e-009 RFRSD:0.120702694589

ID#:5 Name:i-C4

MeanRF:6.28569388318e-006 RFSD:3.67356257312e-008 RFRSD:0.584432306345

ID#:6 Name:n-C4

MeanRF:6.16806041086e-006 RFSD:1.93021197693e-008 RFRSD:0.31293662

ID#:7 Name:i-C5

MeanRF:5.59618151646e-006 RFSD:5.57814644524e-008 RFRSD:0.996777254068

ID#:8 Name:n-C5

MeanRF:5.5166510566e-006 RFSD:2.08602736248e-008 RFRSD:0.378132918155

[Calibration Information - Channel 1]

Data Files

Level : 1

C:\GCsolution\Data\11-2024\NEW CRM-23 03112024-001.gcd


C:\GCsolution\Data\11-2024\NEW CRM-23 03112024-002.gcd

Create Date : 03/11/2024 1:22:33 AM

Analyzed By

 6/11/24

Approved By

  
6/11/24



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**QATARENERGY LNG - LABORATORY DIVISION**

**LNG CARGO CALCULATION SHEET**

EQUIPMENT: GC-48

LNG vessel	CORRELATION TEST CPC 2024
Destination	-
Consignee	-

Cargo # :	CYL # DA8002
Loading ex Tank	-
Berth No.	-

	Sampling Date: 6-11-24	Sampling Time: 9:00			
<b>LNG SHIPMENT SAMPLE</b>					
<b>Component</b>	<b>Run 1</b>		<b>Run 2</b>		<b>Mean</b>
	ESTD	%N	ESTD	%N	%N
N <sub>2</sub>	0.516	0.515	0.515	0.514	0.515
C <sub>1</sub>	93.012	92.841	92.957	92.845	92.842
C <sub>2</sub>	6.569	6.557	6.562	6.554	6.556
C <sub>3</sub>	0.087	0.087	0.087	0.087	0.087
i-C <sub>4</sub>	0.000	0.000	0.000	0.000	0.000
n-C <sub>4</sub>	0.000	0.000	0.000	0.000	0.000
i-C <sub>5</sub>	0.000	0.000	0.000	0.000	0.000
n-C <sub>5</sub>	0.000	0.000	0.000	0.000	0.000
C <sub>6+</sub>	0.000	0.000	0.000	0.000	0.000
CO <sub>2</sub>	0.000	0.000	0.000	0.000	0.000
<b>Total</b>	<b>100.184</b>	<b>100.000</b>	<b>100.121</b>	<b>100.000</b>	<b>100.000</b>
Analyzed by:		ARIE <i>[Signature]</i> 6/11/24			

Component	FINAL RESULT
	MOL %
N <sub>2</sub>	0.52
C <sub>1</sub>	92.83
C <sub>2</sub>	6.56
C <sub>3</sub>	0.09
i-C <sub>4</sub>	0.00
n-C <sub>4</sub>	0.00
i-C <sub>5</sub>	0.00
n-C <sub>5</sub>	0.00
C <sub>6+</sub>	0.00
CO <sub>2</sub>	0.00
<b>Total</b>	<b>100.00</b>

Remark:

ESTD means concentration in external standard mode

% N means concentration in normalized mode to 100%

C1 is balance which is calculated from 100 subtracted by other components

C6+ and CO2 are calibrated separately (if required)

Total Sulfur	-	mg/M <sup>3</sup>
H <sub>2</sub> S	-	ppm mole

Approved by (Shift Chemist):  
*[Signature]*  
 6/11/24



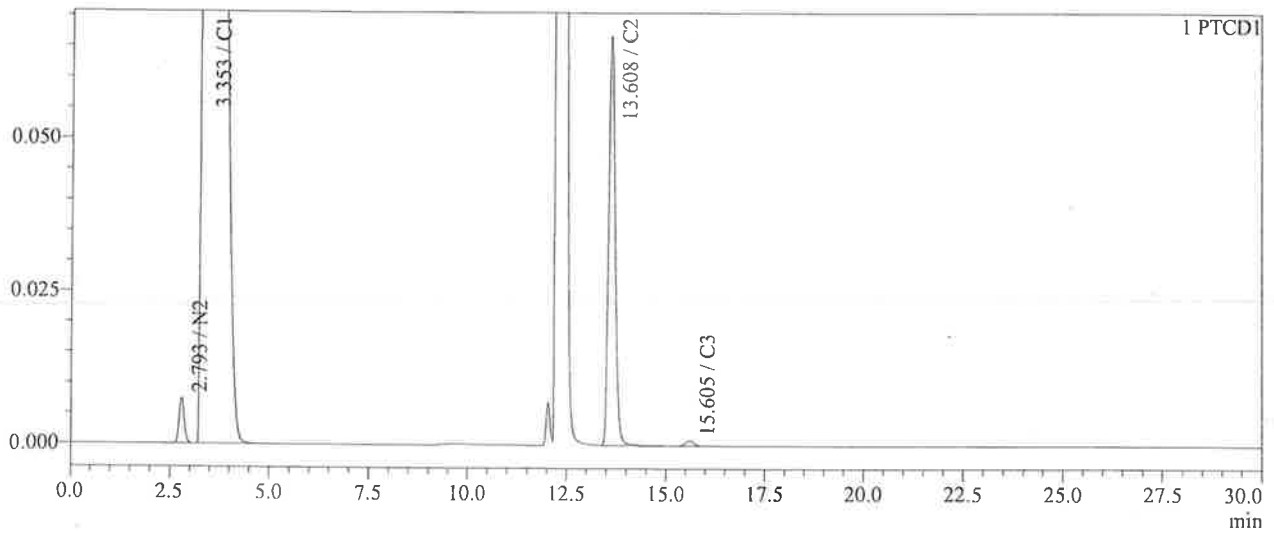
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Sample Information

Sample Name : CORREALATION TEST CPC 2024  
 Sample ID : CYL. # 8002  
 Data Filename : 06112024-002.gcd  
 Method Filename : LNG Loading.gcm  
 Analysis Date : 06/11/2024 9:57:53 AM  
 Operator : ARIE

V

Chromatogram



Peak Table

PTCDD1

Peak#	Ret. Time	Name	Area	Conc.	Unit
1	2.793	N2	66064	0.5145	%
2	3.353	C1	8680954	92.9566	%
3	13.608	C2	757851	6.5622	%
4	15.605	C3	12649	0.0866	%
Total			9517519	100.1199	

  
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# QataEnergy LNG Operations Support - North Lab GC#48

ID# : 1  
Name : N2  
MeanRF: 7.788580e-006 RFSD: 3.519266e-009 RFRSD: 0.045185

ID# : 2  
Name : C1  
MeanRF: 1.070811e-005 RFSD: 3.327718e-009 RFRSD: 0.031077

ID# : 3  
Name : C2  
MeanRF: 8.658925e-006 RFSD: 1.603770e-009 RFRSD: 0.018522

ID# : 4  
Name : C3  
MeanRF: 6.844767e-006 RFSD: 4.000946e-010 RFRSD: 0.005845

ID# : 5  
Name : iC4  
MeanRF: 5.972867e-006 RFSD: 1.215486e-008 RFRSD: 0.203501

ID# : 6  
Name : nC4  
MeanRF: 5.865354e-006 RFSD: 1.491691e-009 RFRSD: 0.025432

ID# : 7  
Name : iC5  
MeanRF: 5.254035e-006 RFSD: 1.834065e-008 RFRSD: 0.349077

ID# : 8  
Name : nC5  
MeanRF: 5.053036e-006 RFSD: 1.668526e-008 RFRSD: 0.330203

<<Calibration Information>>

<PTCD1>

<<Data File>>

Level 1

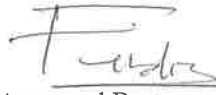
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C:\LabSolutions\Data\11-2024\CRM23-05112024-003.gcd

Date Processed 05/11/2024 2:34:48 PM

Analyzed By :

 6/11/24

  
Approved By : 6/11/24



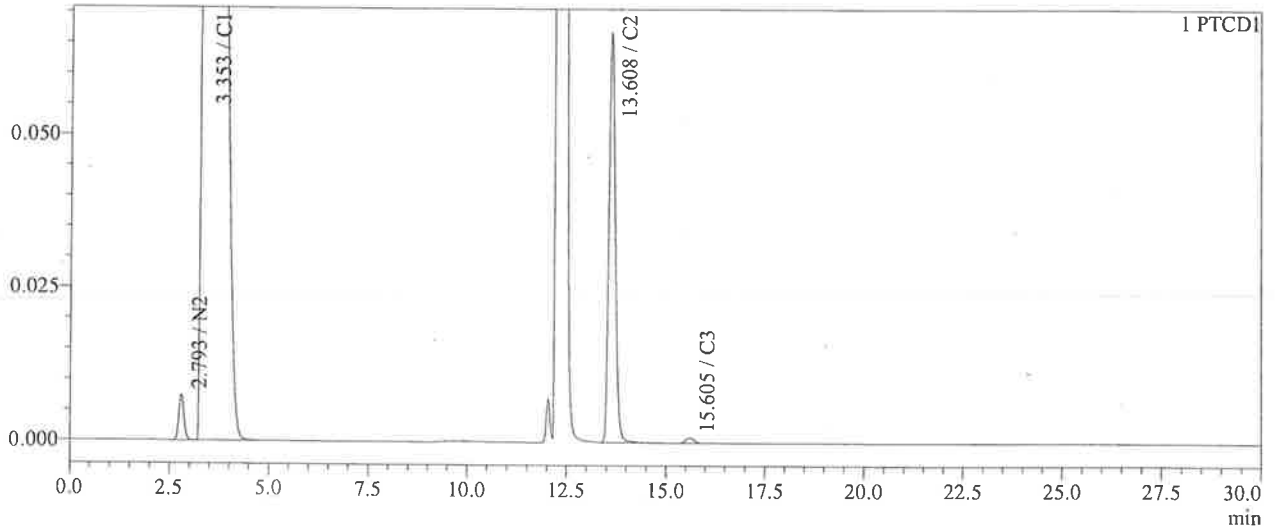


Sample Information

Sample Name : CORREALATION TEST CPC 2024  
 Sample ID : CYL. # 8002  
 Data Filename : 06112024-001.gcd  
 Method Filename : LNG Loading.gcm  
 Analysis Date : 06/11/2024 9:22:02 AM  
 Operator : ARIE

V

Chromatogram



Peak Table

PTCD1

Peak#	Ret. Time	Name	Area	Conc.	Unit
1	2.793	N2	66203	0.5156	%
2	3.353	C1	8686121	93.0119	%
3	13.608	C2	758596	6.5686	%
4	15.605	C3	12765	0.0874	%
Total			9523685	100.1836	

~~Intertek~~  
Global LNG

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6/11/24  
*[Handwritten signature]*



QataEnergy LNG  
Operations Support - North Lab  
GC#48

ID# : 1  
Name : N2  
MeanRF: 7.788580e-006 RFSD: 3.519266e-009 RFRSD: 0.045185

ID# : 2  
Name : C1  
MeanRF: 1.070811e-005 RFSD: 3.327718e-009 RFRSD: 0.031077

ID# : 3  
Name : C2  
MeanRF: 8.658925e-006 RFSD: 1.603770e-009 RFRSD: 0.018522

ID# : 4  
Name : C3  
MeanRF: 6.844767e-006 RFSD: 4.000946e-010 RFRSD: 0.005845

ID# : 5  
Name : iC4  
MeanRF: 5.972867e-006 RFSD: 1.215486e-008 RFRSD: 0.203501

ID# : 6  
Name : nC4  
MeanRF: 5.865354e-006 RFSD: 1.491691e-009 RFRSD: 0.025432

ID# : 7  
Name : iC5  
MeanRF: 5.254035e-006 RFSD: 1.834065e-008 RFRSD: 0.349077

ID# : 8  
Name : nC5  
MeanRF: 5.053036e-006 RFSD: 1.668526e-008 RFRSD: 0.330203

<<Calibration Information>>

<PTCD1>

<<Data File>>

Level 1

C:\LabSolutions\Data\11-2024\CRM23-05112024-002.gcd

C:\LabSolutions\Data\11-2024\CRM23-05112024-003.gcd

Date Processed 05/11/2024 2:34:48 PM

Analyzed By :

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Approved By : 6/11/24

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**QATARENERGY LNG - LABORATORY DIVISION**

**LNG CARGO CALCULATION SHEET**

EQUIPMENT: GC-49

LNG vessel	CORRELATION TEST CPC 2024
Destination	-
Consignee	-

Cargo # :	CYL.# : DA8002
Loading ex Tank	-
Berth No.	-

	Sampling Date: 6-11-24	Sampling Time: 9:00			
	<b>LNG SHIPMENT SAMPLE</b>				
<b>Component</b>	<b>Run 1</b>		<b>Run 2</b>		<b>Mean %N</b>
	ESTD	%N	ESTD	%N	
N <sub>2</sub>	0.514	0.515	0.514	0.515	0.515
C <sub>1</sub>	92.666	92.821	92.643	92.822	92.821
C <sub>2</sub>	6.566	6.577	6.563	6.576	6.577
C <sub>3</sub>	0.087	0.087	0.087	0.087	0.087
i-C <sub>4</sub>	0.000	0.000	0.000	0.000	0.000
n-C <sub>4</sub>	0.000	0.000	0.000	0.000	0.000
i-C <sub>5</sub>	0.000	0.000	0.000	0.000	0.000
n-C <sub>5</sub>	0.000	0.000	0.000	0.000	0.000
C <sub>6+</sub>	0.000	0.000	0.000	0.000	0.000
CO <sub>2</sub>	0.000	0.000	0.000	0.000	0.000
<b>Total</b>	<b>99.833</b>	<b>100.000</b>	<b>99.807</b>	<b>100.000</b>	<b>100.000</b>
	Analyzed by:		ARIE <i>[Signature]</i> 6/11/24		

Component	FINAL RESULT
	MOL %
N <sub>2</sub>	0.52
C <sub>1</sub>	92.81
C <sub>2</sub>	6.58
C <sub>3</sub>	0.09
i-C <sub>4</sub>	0.00
n-C <sub>4</sub>	0.00
i-C <sub>5</sub>	0.00
n-C <sub>5</sub>	0.00
C <sub>6+</sub>	0.00
CO <sub>2</sub>	0.00
<b>Total</b>	<b>100.00</b>

Remark:

ESTD means concentration in external standard mode

% N means concentration in normalized mode to 100%

C1 is balance which is calculated from 100 subtracted by other components

C6+ and CO2 are calibrated separately (if required)

Total Sulfur	-	mg/M <sup>3</sup>
H <sub>2</sub> S	-	ppm mole

Approved by (Shift Chemist):  
*[Signature]*  
 6/11/24



*Wen*

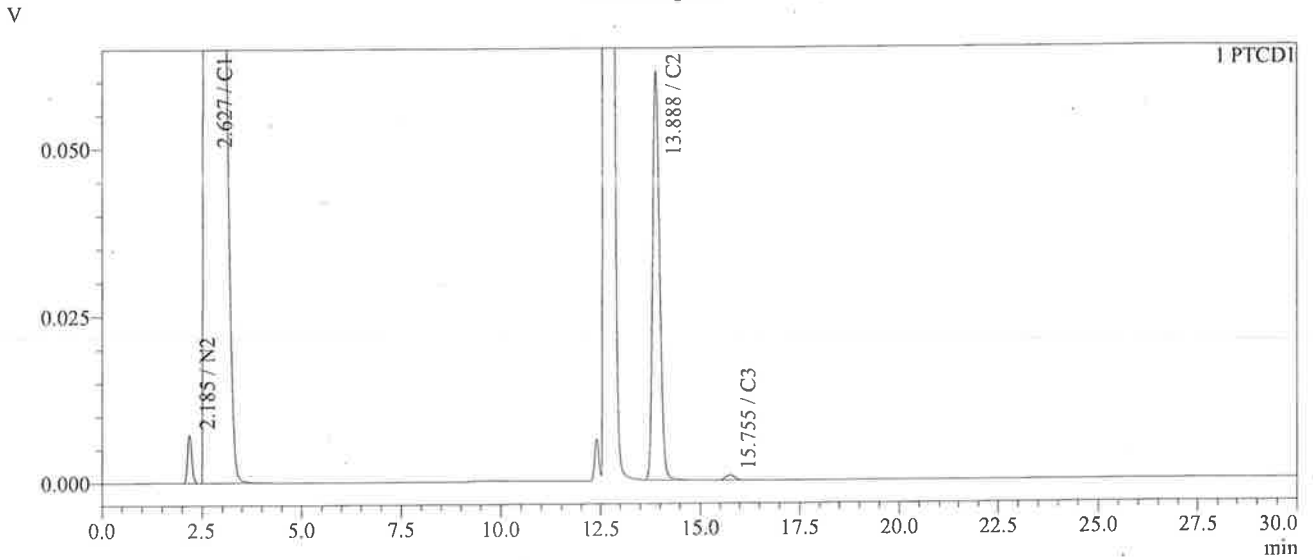


**QatarEnergy LNG**  
**Operations Support - North Lab**  
**GC#49**

Sample Information

Sample Name : CORRELATION TEST CPC 2024  
 Sample ID : CYL.# DA8002  
 Data Filename : 06112024-002.gcd  
 Method Filename : LNG Loading.gcm  
 Analysis Date : 06/11/2024 9:56:18 AM  
 Oprator : ARIE

Chromatogram



Peak Table

Peak#	Ret. Time	Name	Area	Conc.	Unit
1	2.185	N2	54083	0.5137	%
2	2.627	C1	8000538	92.6428	%
3	13.888	C2	749347	6.5627	%
4	15.755	C3	12492	0.0865	%
Total			8816460	99.8056	



*[Signature]* 6/11/24  
*[Signature]*



QatarEnergy LNG  
Operations Support - North Lab  
GC#49

ID# : 1  
Name : N2  
MeanRF: 9.497717e-006 RFSD: 9.572567e-010 RFRSD: 0.010079

ID# : 2  
Name : C1  
MeanRF: 1.157957e-005 RFSD: 1.786286e-009 RFRSD: 0.015426

ID# : 3  
Name : C2  
MeanRF: 8.757889e-006 RFSD: 1.502119e-009 RFRSD: 0.017152

ID# : 4  
Name : C3  
MeanRF: 6.924669e-006 RFSD: 1.509044e-009 RFRSD: 0.021792

ID# : 5  
Name : iC4  
MeanRF: 6.050921e-006 RFSD: 1.127417e-008 RFRSD: 0.186322

ID# : 6  
Name : nC4  
MeanRF: 5.928514e-006 RFSD: 3.881334e-009 RFRSD: 0.065469

ID# : 7  
Name : iC5  
MeanRF: 5.290121e-006 RFSD: 2.212724e-008 RFRSD: 0.418275

ID# : 8  
Name : nC5  
MeanRF: 5.090117e-006 RFSD: 1.909324e-008 RFRSD: 0.375104

Analyzed By :

*[Signature]* 6/11/24

*[Signature]*  
Approved By : 6/11/24

<<Calibration Information>>

<PTCD1>

<<Data File>>

Level 1

C:\LabSolutions\Data\11-2024\LAB1-CRM23 06112024-002.gcd

C:\LabSolutions\Data\11-2024\LAB1-CRM23 06112024-003.gcd

Date Processed 06/11/2024 3:45:51 AM

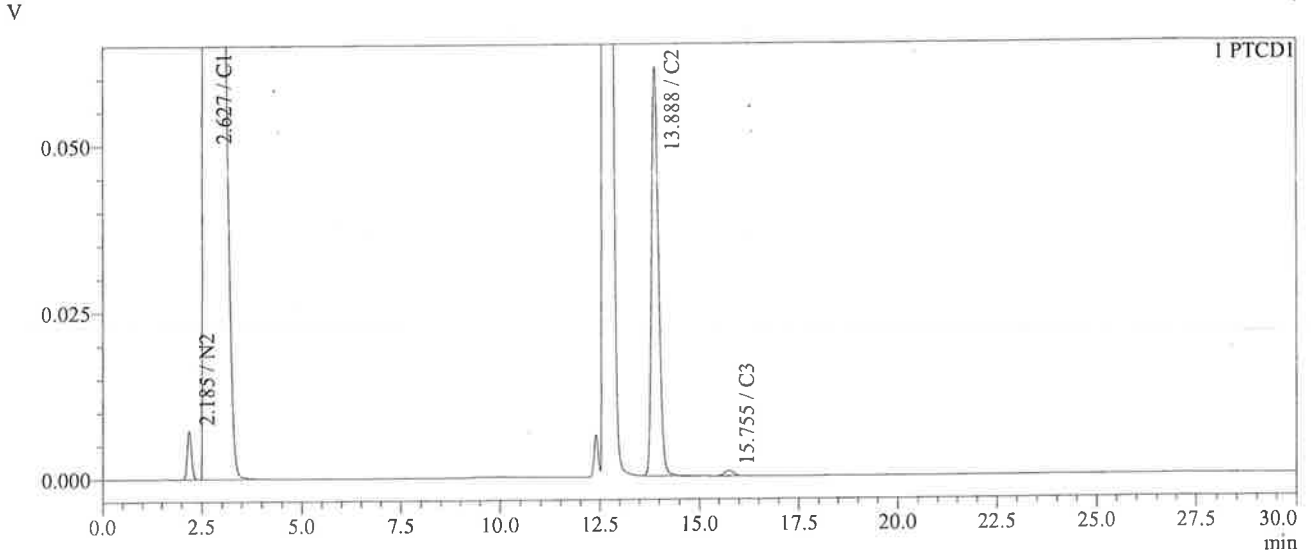


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Sample Information

Sample Name : CORRELATION TEST CPC 2024  
 Sample ID : CYL.# DA8002  
 Data Filename : 06112024-001.gcd  
 Method Filename : LNG Loading.gcm  
 Analysis Date : 06/11/2024 9:24:14 AM  
 Operator : ARIE

Chromatogram



Peak Table

Peak#	Ret. Time	Name	Area	Conc.	Unit
1	2.185	N2	54114	0.5140	%
2	2.627	C1	8002572	92.6663	%
3	13.888	C2	749682	6.5656	%
4	15.755	C3	12495	0.0865	%
Total			8818863	99.8324	

 Intertek  
Global LNG

 6/11/24





QatarEnergy LNG  
Operations Support - North Lab  
GC#49

ID# : 1  
Name : N2  
MeanRF: 9.497717e-006 RFSD: 9.572567e-010 RFRSD: 0.010079

ID# : 2  
Name : C1  
MeanRF: 1.157957e-005 RFSD: 1.786286e-009 RFRSD: 0.015426

ID# : 3  
Name : C2  
MeanRF: 8.757889e-006 RFSD: 1.502119e-009 RFRSD: 0.017152

ID# : 4  
Name : C3  
MeanRF: 6.924669e-006 RFSD: 1.509044e-009 RFRSD: 0.021792

ID# : 5  
Name : iC4  
MeanRF: 6.050921e-006 RFSD: 1.127417e-008 RFRSD: 0.186322


ID# : 6  
Name : nC4  
MeanRF: 5.928514e-006 RFSD: 3.881334e-009 RFRSD: 0.065469

ID# : 7  
Name : iC5  
MeanRF: 5.290121e-006 RFSD: 2.212724e-008 RFRSD: 0.418275

ID# : 8  
Name : nC5  
MeanRF: 5.090117e-006 RFSD: 1.909324e-008 RFRSD: 0.375104

Analyzed By :

 6/11/24

  
Approved By : 6/11/24

<<Calibration Information>>

<PTCD1>

<<Data File>>

Level 1

C:\LabSolutions\Data\11-2024\LAB1-CRM23 06112024-002.gcd

C:\LabSolutions\Data\11-2024\LAB1-CRM23 06112024-003.gcd

Date Processed 06/11/2024 3:45:51 AM







## ISO/IEC 17025 - Calibration Certificate

### Calibrated gas mixture

**Certificate Number: 20-37279-002-5711606 Rev-00**

Page 1 of 2

Customer: Name: QATARGAS OPERATING COMPANY LTD.  
 ATTN: (FOR QATAR LIQ.GAS.CO.LTD)  
 Address: QG - NORTH MAIN WAREHOUSE  
 RAS LAFFAN IND. CITY  
 STATE OF QATAR

COPY

Product: Calibrated gas mixture intended as calibration standard.

Cylinder number: 5711606      Cylinder size: 10 Liter  
 Cylinder pressure: 15,0 MPa      Valve connection: DIN-1

Calibration method: The composition is determined in accordance with ISO 6143.

Traceability: The measurements have been executed using standards for which the traceability to (inter)national standards has been demonstrated towards the RvA.

Calibration result:

Component	Mole fraction mol/mol	Expanded uncertainty (k=2) mol/mol	Calibration date
Methane	92,41 x 10 <sup>-2</sup>	0,09 x 10 <sup>-2</sup>	9 October 2023
Ethane	6,25 x 10 <sup>-2</sup>	0,06 x 10 <sup>-2</sup>	9 October 2023
Propane	0,501 x 10 <sup>-2</sup>	0,010 x 10 <sup>-2</sup>	9 October 2023
Isobutane	517 x 10 <sup>-6</sup>	5 x 10 <sup>-6</sup>	9 October 2023
Butane	505 x 10 <sup>-6</sup>	5 x 10 <sup>-6</sup>	9 October 2023
Isopentane	200,5 x 10 <sup>-6</sup>	4,0 x 10 <sup>-6</sup>	9 October 2023
Pentane	200,1 x 10 <sup>-6</sup>	4,0 x 10 <sup>-6</sup>	9 October 2023
Nitrogen	0,701 x 10 <sup>-2</sup>	0,007 x 10 <sup>-2</sup>	9 October 2023

V

Uncertainty: The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k = 2, which for a normal distribution corresponds to a coverage probability of approximately 95%. The standard uncertainty of measurement has been determined in accordance with Publication EA-4/02.

Product handling: Consult ISO 16664 for product handling guidelines.  
 Minimum utilisation pressure is 0,5 MPa.  
 Use and store the gas cylinder between 0°C and 40°C.

Stability: Scott Specialty Gases Netherlands B.V. stability studies of similar products have demonstrated stability for 36 months.

Customer information: QATARGAS MATERIAL NO.: 833812  
 QATARGASPO ITEM NO.: 00001  
 TYPE: CALIBRATION MIXTURE (GAS CRM)  
 DESCRIPTION: GAS,CALIBRTN MIX,10L,150BAR,SCOTT  
 QATARGAS CONTRACT REF. 4600013555 ITEM 00077

RvA is member of the European Co-operation for Accreditation (EA) and is one of the signatories to the EA Multilateral Agreement (MLA) and to the ILAC Mutual Recognition Arrangement (MRA) for the mutual recognition of calibration certificates.

Scott Specialty Gases Netherlands B.V. Calibration Laboratory Takkebijsters 48 4817 BL Breda, The Netherlands ExpertiseCenter.North-West@airliquide.com Chamber of Commerce Number: 20134663	This certificate is issued provided that both Scott Specialty Gases Netherlands B.V. and the Dutch Accreditation Council (RvA) do not assume any liability.	Reproduction of the complete certificate is allowed. Parts of the certificate may only be reproduced with written approval of the Calibration Laboratory.
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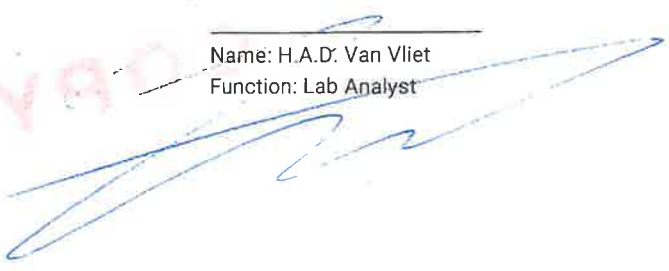
# ISO/IEC 17025 - Calibration Certificate

## Calibrated gas mixture

Certificate Number: 20-37279-002-5711606 Rev-00

Page 2 of 2

Issued: Breda, 18 October 2023

  
 Name: H.A.D. Van Vliet  
 Function: Lab Analyst

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