



Your Reference : 107-TARR-NH3

Repsol S.A.

Méndez Álvaro, 44
28045 Madrid. Spain
Tel.: +34 91 753 81 00

For the attention of: Mr. Roberto Sanchez

Copy to: Ms. Laura Mendez

CONTENTS LISTING

Report No. ES-0144-09-2016
Date of report 22-Sep-16
Vessel Ramagas
Location Pantalan de Repsol, Tarragona, Spain
Product anhydrous ammonia
Bill of Lading date 22-Sep-16

We have pleasure in enclosing herewith, our report for the above referenced inspection.
The inspection was carried out according to the following reports:

Document Title	Pages
Contents Listing	One
Summary Of Quantities	One
Certificate Of Quantity Loaded (anhydrous ammonia)	One
Receipt For Documents	One
Time Log	One
Vessel Ullage Report Before Loading	One
Vessel Ullage Report After Loading	One
Vessel Experience Report	One
Vessel Tank Inspection Report	One
Sample Receipt	One
Sample Report	One
Analysis Report (Grade 1: anhydrous ammonia) - After Loading	One
Letter Of Protest On Apparent Discrepancy (anhydrous ammonia)	One
Statement Of Facts	One
Shore Tank Report, Page 1 of 4	One
Shore Tank Report, Page 2 of 4	One
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Shore Tank Report, Page 4 of 4	One
Shore Lines Report (Before)	One
Shore Lines Report (After)	One
Total pages:	20 pages

Should you have any query, or require any additional information, please contact Mr. Jose Cardenas at our Tarragona office (telephone number +34 98 765 43 21).



Report No. ES-0144-09-2016
 Date of report 22-Sep-16
 Vessel Ramagas
 Location Pantalan de Repsol, Tarragona, Spain
 Product anhydrous ammonia

SUMMARY OF QUANTITIES

BOL No.	Product name	BOL date	Bill of Lading figures:	
			Metric Tons (vac)	Metric Tons (air)
900/2-NH3	anhydrous ammonia	22-Sep-16	5,638.092	5,627.987

Comparison of Ship's figures and Bill of Lading

Totals of the Bills Of Lading	anhydrous ammonia
Total Metric tons (vacuo)	5,638.092
Total Metric tons (air)	5,627.987
GSV at 15°C, cu m	9,128.148

METRIC TONS IN VACUO (GROSS WEIGHT)

Bill of Lading	5,638.092
Vessel's loaded quantity	5,606.694
Difference	-31.398
% Difference	-0.557%
Bill of Lading	5,638.092
Vessel adjusted by VEF	5,630.907
Difference	-7.185
% Difference	-0.127%

METRIC TONS IN AIR (GROSS WEIGHT)

Bill of Lading	5,627.987
Vessel's loaded quantity	5,596.647
Difference	-31.340
% Difference	-0.557%
Bill of Lading	5,627.987
Vessel adjusted by VEF	5,620.817
Difference	-7.170
% Difference	-0.127%

CUBIC METRES AT 15°C (GROSS STANDARD VOLUME)

Bill of Lading	9,128.148
Vessel's loaded quantity	9,077.313
Difference	-50.835
% Difference	-0.557%
Bill of Lading	9,128.148
Vessel adjusted by VEF	9,116.514
Difference	-11.634
% Difference	-0.127%

Remarks:

Liquid and vapour densities were calculated as per "Thermodynamic Properties of Ammonia for Temperatures from the Melting Line to 725 K and Pressures to 1000 MPa," by Kehui Gao, Jiangtao Wu, Ian H. Bell, Allan H. Harvey, and Eric W. Lemmon J. Phys. Chem. Ref. Data, 2018.



**CERTIFICATE OF QUANTITY
LOADED**

Report No.	ES-0144-09-2016
Date of report	22-Sep-16
Vessel	Ramagas
Location	Pantalan de Repsol, Tarragona, Spain
Product	anhydrous ammonia
Bill of Lading date	22-Sep-16

Shore tank figures:

GRAND TOTALS: anhydrous ammonia

Total Metric tons in vacuo :	5,638.092
Total Long tons in vacuo :	5,549.047
Total Short tons in vacuo :	6,214.933
Total Pounds in vacuo :	12,429,865.167
1 Pound / 1 Metric ton :	0.00045359
Weight Correction Factor :	0.998208068351779
Total Metric tons in air :	5,627.987
Total Long tons in air :	5,539.102
Total Short tons in air :	6,203.794
Total Pounds in air :	12,407,587.456
US Gallons at 60°F :	2,414,528.120
US Barrels at 60°F :	57,488.760
Standard Volume at 15°C, cu m :	9,128.145
Average Density at 15°C, kg/l :	0.61766

Liquid and vapour densities were calculated as per "Thermodynamic Properties of Ammonia for Temperatures from the Melting Line to 725 K and Pressures to 1000 MPa," by Kehui Gao, Jiangtao Wu, Ian H. Bell, Allan H. Harvey, and Eric W. Lemmon J. Phys. Chem. Ref. Data, 2018.



RECEIPT FOR DOCUMENTS

Report No. ES-0144-09-2016
Date of report 22-Sep-16
Vessel Ramagas
Location Pantalan de Repsol, Tarragona, Spain
Product anhydrous ammonia
Bill of Lading date 22-Sep-16

This is to confirm that I, undersigned Ship's Officer did receive from the undersigned Surveyor the following documents:

Document Title	Qty
Receipt For Documents	One
Time Log	One
Ullage Report before Loading	One
Ullage Report after Loading	One
Vessel Experience Report	One
Tank Inspection Report	One
Total Pages:	6

Instructions regarding documents:	1 set for Vessel's own use
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Should you have any query, or require any additional information, please contact Mr. Jose Cardenas at our Tarragona office (telephone number +34 98 765 43 21).

Chief Officer of "Ramagas": Alexey Petrov

For and on behalf of Global Survey Solutions Limited: Pablo Sanchez



Report No. ES-0144-09-2016
 Date of report 22-Sep-16
 Vessel Ramagas
 Location Pantalan de Repsol, Tarragona, Spain
 Product anhydrous ammonia
 Bill of Lading date 22-Sep-16

Time	Date	Operations
18:20	12-Sep-16	Vessel arrived at roads (End of Sea Passage)
18:20	12-Sep-16	Notice of Readiness tendered
18:54	12-Sep-16	Anchor dropped
08:30	18-Sep-16	Notice of Readiness accepted
08:50	18-Sep-16	Anchor aweigh
10:36	18-Sep-16	Pilot on board
11:36	18-Sep-16	Commenced mooring (first line ashore)
12:18	18-Sep-16	Vessel all fast alongside berth no. 11
12:36	18-Sep-16	Gangway secured
16:00	18-Sep-16	Cleared by Customs / Free Pratique granted
16:45	18-Sep-16	Inspector on board
17:24	18-Sep-16	OBQ in Vessel's tanks measured
17:24	18-Sep-16	Tank inspection completed
17:48	18-Sep-16	OBQ calculation completed
18:42	18-Sep-16	Hoses connected (1 x 8")
19:00	18-Sep-16	Commenced Loading
07:12	20-Sep-16	Completed Loading
08:45	20-Sep-16	Vessel's tanks measured
09:30	20-Sep-16	Loaded quantity calculation completed
10:06	20-Sep-16	Hose disconnected
12:00	20-Sep-16	Official cargo documents on board
13:30	20-Sep-16	Vessel sailed (ETS)

DELAYS				REASON
From		To		
18:20	12-Sep-16	10:36	18-Sep-16	Awaiting berthing instructions
10:36	18-Sep-16	12:18	18-Sep-16	Pilotage
15:00	18-Sep-16	16:00	18-Sep-16	Safety meeting
16:00	18-Sep-16	18:12	18-Sep-16	Awaiting weather improvement
07:45	20-Sep-16	19:30	19-Sep-16	Loading suspended due to bad weather
08:50	22-Sep-16	11:00	20-Sep-16	Measurements and calculations

Remarks: (*) - As per information received from the Master of the vessel

Sea water temperature, °C
18

General weather condition
Calm

Product Name	Pumping time hours minutes	Bill of Lading Mt vacuo	Pumping rate Mt vacuo / hour
anhydrous ammonia	24 hours 27 minutes	5638.092	230.597

Chief Officer of "Ramagas": Alexey Petrov

For and on behalf of Global Survey Solutions Limited: Pablo Sanchez



Report No. ES-0144-09-2016
 Date of report 22-Sep-16
 Vessel Ramagas
 Location Pantalan de Repsol, Tarragona, Spain
 Product anhydrous ammonia
 Bill of Lading date 22-Sep-16

VESSEL ULLAGE REPORT BEFORE LOADING

UNITS: Volume: **cu.m.** Linear: **m.** Temp: **°C** Pressure: **bar** Atmospheric pressure: 1.01325

Tank No.	1P	1S	2P	2S	3P	3S		
Cargo	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia		
100% capacity of tanks:	2,500.130	2,498.350	2,524.970	2,524.960	2,524.980	2,524.220		
Observed Liquid Innage, m								
Liquid Temperature, °C								
Vapour Temperature, °C	-32.30	-32.10	-32.30	-32.10	-29.20	-30.30		
Vapour Gauge Pressure, bar	0.05300	0.06300	0.05300	0.06300	0.22800	0.16300		
Inert gases, %								

Liquid Phase							Total:	MT (vacuo)
Correction for Trim / List, m								
Correction for Float Buoy., m								
Correction for Tape, m								
Corrected Liquid Innage, m								
Liquid Volume, m ³								
Shrinking Factor								
Volume corrected, m ³								
Liquid Density, Mt/m ³								
Liquid Metric tons (vac)								

Vapour Phase							Total:	14.710 MT (vacuo)
Vapour Volume, m ³	2,500.130	2,498.350	2,524.970	2,524.960	2,524.980	2,524.220		
Corr. Vap. Vol. for Inert Gas	2,500.130	2,498.350	2,524.970	2,524.960	2,524.980	2,524.220		
Shrinking Factor	0.999298	0.999290	0.999298	0.999290	0.999204	0.999238		
Volume corrected, m ³	2,498.375	2,496.576	2,523.197	2,523.167	2,522.970	2,522.297		
Vapour Density, Mt/m ³	0.0009334	0.0009416	0.0009334	0.0009416	0.0010760	0.0010232		
Vapour Metric tons (vac)	2.332	2.351	2.355	2.376	2.715	2.581		
Total Metric tons (vac)	2.332	2.351	2.355	2.376	2.715	2.581		
Correction Factor to air	0.99821	0.99821	0.99821	0.99821	0.99821	0.99821		
Total Metric tons (air)	2.328	2.347	2.351	2.372	2.710	2.576		
GSV at 15°C, cu m	3.776	3.806	3.813	3.847	4.396	4.179		

Before loading:								
Total Metric tons (vac)	2.332	2.351	2.355	2.376	2.715	2.581		
Total Metric tons (air)	2.328	2.347	2.351	2.372	2.710	2.576		
GSV at 15°C, cu m	3.776	3.806	3.813	3.847	4.396	4.179		

Total quantity before loading:	anhydrous ammonia	Total
Metric Tons (vacuo)	14.710	14.710
Metric Tons (air)	14.684	14.684
Cubic Metres at 15°C	23.817	23.817

Sea Condition : Calm
 Draft FWD :
 AFT :
 TRIM :
 LIST : Nil

Remarks :

Vessel calculations based upon calibration tables

Chief Officer of "Ramagas": Alexey Petrov

For and on behalf of Global Survey Solutions Limited: Pablo Sanchez

Report No. ES-0144-09-2016
 Date of report 22-Sep-16
 Vessel Ramagas
 Location Pantalan de Repsol, Tarragona, Spain
 Product anhydrous ammonia
 Bill of Lading date 22-Sep-16

VESSEL ULLAGE REPORT AFTER LOADING

UNITS: Volume: **cu.m.** Linear: **m.** Temp: **°C** Pressure: **bar** Atmospheric pressure: 1.01325

Tank No.	1P	1S	2P	2S	3P	3S		
Cargo	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia		
100% capacity of tanks:	2,500.130	2,498.350	2,524.970	2,524.960	2,524.980	2,524.220		
Observed Liquid Innage, m	2.030	1.946	10.650	10.785	6.415	6.260		
Liquid Temperature, °C	-33.90	-32.80	-33.10	-33.80	-31.30	-34.20		
Vapour Temperature, °C	-32.10	-31.40	-32.40	-32.90	-27.10	-26.20		
Vapour Gauge Pressure, bar	0.06300	0.10100	0.04800	0.02100	0.35900	0.41800		
Inert gases, %								

Liquid Phase							Total, Mt vac:	5,614.343 MT (vacuo)
Correction for <i>Trim / List, m</i>	-0.123	-0.123	-0.142	-0.143	-0.143	-0.134		
Correction for <i>Float Buoy., m</i>	1.958	1.873	10.564	10.698	6.338	6.183		
Correction for <i>Tape, m</i>								
Corrected Liquid Innage, m	3.865	3.696	21.072	21.340	12.610	12.309		
Liquid Volume, m ³	314.742	295.748	2,332.744	2,345.845	1,485.400	1,469.537		
Shrinking Factor	0.999352	0.999314	0.999320	0.999316	0.999268	0.999362		
Volume corrected, m ³	314.538	295.545	2,331.158	2,344.240	1,484.313	1,468.599		
Liquid Density, Mt/m ³	0.61766	0.61766	0.61766	0.61766	0.61766	0.61766		
Liquid Metric tons (vac)	214.628	201.266	1,588.381	1,599.311	1,008.086	1,002.671		

Vapour Phase							7.061 MT (vacuo)
Vapour Volume, m ³	2,185.388	2,202.602	192.226	179.115	1,039.580	1,054.683	
Corr. Vap. Vol. for <i>Inert Gas</i>	2,185.388	2,202.602	192.226	179.115	1,039.580	1,054.683	
Shrinking Factor	0.999290	0.999302	0.999302	0.999316	0.999204	0.999114	
Volume corrected, m ³	2,183.836	2,201.065	192.092	178.992	1,038.752	1,053.749	
Vapour Density, Mt/m ³	0.0009416	0.0009727	0.0009293	0.0009072	0.0011819	0.0012294	
Vapour Metric tons (vac)	2.056	2.141	0.179	0.162	1.228	1.295	

After loading:							
Total Metric tons (vac)	216.684	203.407	1,588.560	1,599.473	1,009.314	1,003.966	
Correction Factor to air	0.99821	0.99821	0.99821	0.99821	0.99821	0.99821	
Total Metric tons (air)	216.296	203.043	1,585.713	1,596.607	1,007.505	1,002.167	
GSV at 15°C, cu m	350.814	329.319	2,571.900	2,589.569	1,634.093	1,625.435	

Quantity Loaded:							
Total Metric tons (vac)	214.352	201.056	1,586.205	1,597.097	1,006.599	1,001.385	
Total Metric tons (air)	213.968	200.696	1,583.362	1,594.235	1,004.795	999.591	
GSV at 15°C, cu m	347.038	325.513	2,568.087	2,585.722	1,629.697	1,621.256	

Total Quantity Loaded: anhydrous ammonia	Total
Metric Tons (vacuo)	5,606.694
Metric Tons (air)	5,596.647
Cubic Metres at 15°C	9,077.313

Sea Condition : Moderate
 Draft FWD : 8.00 m
 AFT : 8.50 m
 TRIM : 0.50 m
 LIST : Nil

Remarks :

Vessel calculations based upon calibration tables for "Ramagas"

Chief Officer of "Ramagas": Alexey Petrov

For and on behalf of Global Survey Solutions Limited: Pablo Sanchez



Report No. ES-0144-09-2016
 Date of report 22-Sep-16
 Vessel Ramagas
 Location Pantalan de Repsol, Tarragona, Spain
 Product anhydrous ammonia
 Bill of Lading date 22-Sep-16

VESSEL EXPERIENCE REPORT

Voyage	Bill of Lading date	Cargo	Loadport	Vessel's figure Mt	Bill of Lading Mt	Vessel Load Ratio	Qualifying
Last	20-Jul-16	ethylene / propylene	Antwerp	5,541.575	5,569.918	0.99497	Yes
2nd last	19-May-16	propylene	Antwerp	8,259.701	8,293.899	0.99590	Yes
3rd last	30-Apr-16	ethylene	Antwerp	6,189.978	6,220.750	0.99502	Yes
4th last	27-Feb-16	propylene	Antwerp	8,588.695	8,622.232	0.99617	Yes
5th last	07-Feb-16	ethylene	Antwerp	2,667.894	2,676.842	0.99664	Yes

Voyages excluded : When Bill Of Lading is based on shipboard measurements. Voyages prior to any structural cargo tank modifications. Lighterings. First voyage after dry dock.	Total	31,247.843	31,383.641
	Total Qualifying	31,247.843	31,383.641
	First average		0.99567
	+ 0.3 %		0.99866
	- 0.3 %		0.99269
	Second Average		0.99567
	+ 0.3 %		0.99866
	- 0.3 %		0.99268

Ship's figures this voyage (Excluding OBQ)	5,606.694	Vessel Experience Factor based on 2nd average 0.9957
Bill of Lading this voyage	5,638.092	
Vessel loaded ratio this voyage	0.99443	

The above mentioned quantities are for the last 0 voyages as obtained from ship's record and cannot be guaranteed as accurate by the surveyor. No liability can be assumed for errors resulting from improper information supplied by the vessel.

Remarks:

For receipt,
 Chief Officer of "Ramagas": Alexey Petrov

For and on behalf of
 Global Survey Solutions Limited
 Surveyor's name Roberto Fernandez



VESSEL TANK INSPECTION REPORT

Report No. ES-0144-09-2016
Date of report 22-Sep-16
Vessel Ramagas
Location Pantalan de Repsol, Tarragona, Spain
Product anhydrous ammonia
Bill of Lading date 22-Sep-16

Tank inspection was carried out: Time: 17:24 Date: 18-Sep-16

Inspection of "Ramagas" at on the September 18, 2016.

GENERAL INFORMATION

Name of Vessel: Ramagas
Loading Place: Pantalan de Repsol, Tarragona, Spain
Installation: Gas Terminal, berth No. 11
Date: 18-Sep-16
Cargoes to be loaded: anhydrous ammonia

INFORMATION OBTAINED ON BOARD

Previous cargoes: anhydrous ammonia in cargo tanks: 1P, 1S, 2P, 2S, 3P,

Quantity remaining on board: 14.71 Metric Tons (vacuo)
Method of cleaning, if any: none

TEST RESULTS ON VAPOURS AFTER PURGING WITH NITROGEN

Oxygen Content, % by volume: Less than 0.3

CONCLUSION

As the oxygen content was below the limit of 0.3% by volume and previous cargo being compatible with cargoes to be loaded, all ships cargo tanks were found to be in a satisfactory condition to receive designated cargoes.

For receipt,
Chief Officer of "Ramagas": Alexey Petrov

For and on behalf of
Global Survey Solutions Limited
Surveyor's name Roberto Fernandez



Report No. ES-0144-09-2016
Date of report 22-Sep-16
Vessel Ramagas
Location Pantalan de Repsol, Tarragona, Spain
Product anhydrous ammonia
Bill of Lading date 22-Sep-16

SAMPLE RECEIPT

Table with 6 columns: Product, Sample source, Size, Sample description, Seal No., Sample Distribution. Contains two rows of data for anhydrous ammonia samples.

Date: 22-Sep-16 Receipt acknowledged
Chief Officer of "Ramagas": Alexey Petrov
Surveyor's name Roberto Fernandez



Report No. ES-0144-09-2016
Date of report 22-Sep-16
Vessel Ramagas
Location Pantalan de Repsol, Tarragona, Spain
Product anhydrous ammonia
Bill of Lading date 22-Sep-16

SAMPLE REPORT

Product	Sample source	Size	Sample description	Seal No.	Sample Distribution
anhydrous ammonia	In-line autosampler	1 Ltr.	Taken during loading	12351	For testing
anhydrous ammonia	In-line autosampler	1 Ltr.	Taken during loading	12352	For testing

Date: 22-Sep-16

Surveyor's name Pablo Sanchez



Report No. ES-0144-09-2016
Date of report 22-Sep-16
Vessel Ramagas
Location Pantalan de Repsol, Tarragona, Spain
Product anhydrous ammonia
Bill of Lading date 22-Sep-16
Sample submitted as: anhydrous ammonia
Sample drawn: by In-line autosampler
Sample description: In-line autosample taken during loading
Received on: 22-Sep-16
Testing performed by: Global Survey Solutions Limited Laboratory
Testing performed on: 22-Sep-16

ANALYSIS REPORT
(Grade 1: anhydrous ammonia)
After Loading

Test	Units	Method	Specification	Result
Purity	mass %		min. 99.99	99.995
Oil	ppm mass		max. 10	7
Moisture	mass %		max. 0.01	0.005
Pyridine	ppm mass		Nil	Nil
Napthanelene	ppm mass		Nil	Nil
Phosphic	ppm mass		Passes Test	Passes
Sulphur Compounds	ppm mass		Passes Test	Passes

Chemist: Maria Valadez



LETTER OF PROTEST ON APPARENT DISCREPANCY

Report No. ES-0144-09-2016
 Date of report 22-Sep-16
 Vessel Ramagas
 Location Pantalan de Repsol, Tarragona, Spain
 Product anhydrous ammonia
 Bill of Lading date 22-Sep-16

To: To Whom It May Concern

At the Port of: Tarragona

Dear Sir,

On behalf of our principal(s), we hereby notify you that on the day of 22-Sep-16 the following occurrence was noted:

APPARENT DISCREPANCY:

Grade 1	anhydrous ammonia
Metric Tons in vacuo (Gross Weight)	
Bill of Lading	5,638.092
Vessel's loaded quantity	5,606.694
Difference	-31.398
% Difference	-0.557%
Bill of Lading	5,638.092
Vessel adjusted by VEF	5,630.907
Difference	-7.185
% Difference	-0.127%
Metric Tons in air (Gross Weight)	
Bill of Lading	5,627.987
Vessel's loaded quantity	5,596.647
Difference	-31.340
% Difference	-0.557%
Bill of Lading	5,627.987
Vessel adjusted by VEF	5,620.817
Difference	-7.170
% Difference	-0.127%

Accordingly, we are holding you responsible for the loss and damage thereby sustained, as well as any consequential arising therefrom.

Please direct any written correspondence on this matter to:

Mr.
 Global Survey Solutions Limited

Tel: +390524894149
 Email: ops@surveycalc.com
 Email: info@surveycalc.com

Very truly yours:

Receipt acknowledged:

Date: September 22, 2016
 Signed by: Pablo Sanchez
 For: Surveyor

Date: September 22, 2016
 Signed by: Alexey Petrov
 For: Ship



STATEMENT OF FACTS

Report No. ES-0144-09-2016
Date of report 22-Sep-16
Vessel Ramagas
Location Pantalan de Repsol, Tarragona, Spain
Product anhydrous ammonia
Bill of Lading date 22-Sep-16

For the attention of: To Whom It May Concern
Copy to:

At the Port of: Tarragona

Dear Sirs,

On behalf of our principal(s), we hereby notify you that on the day of 22-Sep-16 the following occurrence was noted:

Due to the moderate swelling the measurements taken on board Gas Carrier "Ramagas" may affect on accuracy of determination of quantity of anhydrous ammonia in ship's tanks.

Very truly yours:

Date: September 22, 2016

Signed by: Pablo Sanchez

For: Surveyor



Report No. ES-0144-09-2016
 Date of report 22-Sep-16
 Vessel Ramagas
 Location Pantalan de Repsol, Tarragona, Spain
 Bill of Lading date 22-Sep-16

SHORE TANK REPORT
 Page 1 of 4

Atmospheric pressure, bar: 1.01325

		Tank No. 17		Tank No. 18		Tank No. 21	
LIQUID PHASE		Before	After	Before	After	Before	After
Product		anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia
Date	dd-mm-yy	18-Sep-16	19-Sep-16	18-Sep-16	19-Sep-16	18-Sep-16	19-Sep-16
Time	0000	18:59	05:40	18:59	05:40	18:59	05:40
Total Tank Volume	cu m	605.059	605.059	606.821	606.821	609.045	609.045
Shrinkage Factor for Total Volume		0.99856	0.99856	0.9986	0.99862	0.99845	0.99845
Total Volume Corrected	cu m	604.188	604.188	605.972	605.984	608.101	608.101
Liquid level corrected	m	3.588	0.334	3.746	0.233	3.670	0.427
Liquid Volume	cu m	463.502	14.447	487.297	8.131	484.435	22.304
Liquid Temperature	°C	-27.9	-27.6	-27.8	-27.6	-32.7	-32.6
Shrinkage Factor for Liquid Volume		0.99909	0.99929	0.99907	0.99929	0.99898	0.9992
Liquid Volume Corrected	cu m	463.080	14.437	486.844	8.125	483.941	22.286
Density at 15°C	kg/l	0.61766	0.61766	0.61766	0.61766	0.61766	0.61766
Observed Liquid Density	kg/l	0.67492	0.67455	0.67481	0.67456	0.68088	0.68076
Liquid Mass	Mt	312.542	9.738	328.527	5.481	329.506	15.171
VAPOUR PHASE							
Vapour Vol. Corrected	cu m	141.108	589.751	119.128	597.859	124.160	585.815
Vapour Temperature	°C	-29.3	-29.4	-27.1	-26.1	-31.2	-31.6
Vapour Gauge Pressure	bar	0.22200	0.21600	0.35900	0.42500	0.11200	0.09000
Vapour Density	kg/l	0.0010711	0.0010663	0.0011819	0.0012351	0.0009816	0.0009637
Vapour Mass	Mt	0.151	0.629	0.141	0.738	0.122	0.565
Total Mass	Mt	312.693	10.367	328.668	6.219	329.628	15.736
Difference, Mass	Mt	302.326		322.449		313.892	
Total Weight in Air	Mt	312.133	10.348	328.079	6.208	329.037	15.708
Difference, Weight in Air	Mt	301.785		321.871		313.329	
GSV at 15°C	cu m	506.254	16.784	532.118	10.069	533.672	25.477
Difference, GSV at 15°C	cu m	489.470		522.049		508.195	

		Tank No. 22		Tank No. 23		Tank No. 24	
LIQUID PHASE		Before	After	Before	After	Before	After
Product		anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia
Date	dd-mm-yy	18-Sep-16	19-Sep-16	18-Sep-16	19-Sep-16	18-Sep-16	19-Sep-16
Time	0000	18:59	05:40	18:59	09:55	18:59	05:40
Total Tank Volume	cu m	600.353	600.353	602.946	602.946	608.010	608.010
Shrinkage Factor for Total Volume		0.99843	0.99843	0.99841	0.99843	0.99844	0.99844
Total Volume Corrected	cu m	599.411	599.411	601.987	601.999	607.062	607.062
Liquid level corrected	m	3.711	0.403	3.607	0.457	3.634	0.454
Liquid Volume	cu m	481.926	20.406	472.722	24.852	476.436	24.508
Liquid Temperature	°C	-33.4	-33.1	-33.5	-32.9	-32.7	-32.3
Shrinkage Factor for Liquid Volume		0.99895	0.99919	0.99897	0.99919	0.99898	0.9992
Liquid Volume Corrected	cu m	481.420	20.389	472.235	24.832	475.950	24.488
Density at 15°C	kg/l	0.61766	0.61766	0.61766	0.61766	0.61766	0.61766
Observed Liquid Density	kg/l	0.68174	0.68137	0.68186	0.68112	0.68088	0.68039
Liquid Mass	Mt	328.203	13.892	321.998	16.914	324.065	16.661
VAPOUR PHASE							
Vapour Vol. Corrected	cu m	117.991	579.022	129.752	577.167	131.112	582.574
Vapour Temperature	°C	-31.5	-32.1	-32.8	-32.3	-32.1	-32.0
Vapour Gauge Pressure	bar	0.09600	0.06300	0.02700	0.05300	0.06300	0.06900
Vapour Density	kg/l	0.0009686	0.0009416	0.0009121	0.0009334	0.0009416	0.0009465
Vapour Mass	Mt	0.114	0.545	0.118	0.539	0.123	0.551
Total Mass	Mt	328.317	14.437	322.116	17.453	324.188	17.212
Difference		313.880		304.663		306.976	
Total Weight in Air	Mt	327.729	14.411	321.539	17.422	323.607	17.181
Difference, Weight in Air	Mt	313.318		304.117		306.426	
GSV at 15°C	cu m	531.550	23.374	521.510	28.257	524.865	27.866
Difference, GSV at 15°C	cu m	508.176		493.253		496.999	

SUB TOTALS:		Product :	anhvdrous ammo	Sub Totals
Total Metric tons (vacuo) :			1,864.186	1,864.186
Total Metric tons (air) :			1,860.846	1,860.846
GSV at 15°C, cu m :			3,018.142	3,018.142

Terminal Representative: Jose Ramires

Surveyor's name Roberto Fernandez



Report No. ES-0144-09-2016
 Date of report 22-Sep-16
 Vessel Ramagas
 Location Pantalan de Repsol, Tarragona, Spain
 Bill of Lading date 22-Sep-16

SHORE TANK REPORT
 Page 2 of 4

Atmospheric pressure, bar: 1.01325

		Tank No. 25		Tank No. 27		Tank No. 17	
LIQUID PHASE		Before	After	Before	After	Before	After
Product		anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia
Date	dd-mm-yy	19-Sep-16	19-Sep-16	19-Sep-16	19-Sep-16	19-Sep-16	20-Sep-16
Time	0000	09:55	14:54	09:55	11:51	19:18	03:53
Total Tank Volume	cu m	609.132	609.132	604.049	604.049	605.059	605.059
Shrinkage Factor for Total Volume		0.99841	0.99842	0.99841	0.9984	0.99853	0.99854
Total Volume Corrected	cu m	608.164	608.170	603.088	603.082	604.170	604.176
Liquid level corrected	m	3.641	0.422	2.708	0.407	3.759	0.373
Liquid Volume	cu m	481.546	22.420	337.840	21.535	486.958	17.263
Liquid Temperature	°C	-33.2	-32.8	-33.2	-33.4	-29.6	-29.3
Shrinkage Factor for Liquid Volume		0.99897	0.9992	0.99907	0.99919	0.99903	0.99926
Liquid Volume Corrected	cu m	481.050	22.402	337.526	21.518	486.486	17.250
Density at 15°C	kg/l	0.61766	0.61766	0.61766	0.61766	0.61766	0.61766
Observed Liquid Density	kg/l	0.68150	0.68100	0.68149	0.68174	0.67705	0.67668
Liquid Mass	Mt	327.836	15.256	230.021	14.670	329.375	11.673
VAPOUR PHASE							
Vapour Vol. Corrected	cu m	127.114	585.768	265.562	581.564	117.684	586.926
Vapour Temperature	°C	-32.1	-32.0	-32.4	-32.7	-27.3	-26.8
Vapour Gauge Pressure	bar	0.06300	0.06900	0.04800	0.03200	0.34600	0.37900
Vapour Density	kg/l	0.0009416	0.0009465	0.0009293	0.0009162	0.0011715	0.0011981
Vapour Mass	Mt	0.120	0.554	0.247	0.533	0.138	0.703
Total Mass	Mt	327.956	15.810	230.268	15.203	329.513	12.376
Difference, Mass	Mt	312.146		215.065		317.137	
Total Weight in Air	Mt	327.368	15.782	229.855	15.176	328.923	12.354
Difference, Weight in Air	Mt	311.586		214.679		316.569	
GSV at 15°C	cu m	530.965	25.597	372.807	24.614	533.486	20.037
Difference, GSV at 15°C	cu m	505.368		348.193		513.449	

		Tank No. 18		Tank No. 21		Tank No. 22	
LIQUID PHASE		Before	After	Before	After	Before	After
Product		anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia
Date	dd-mm-yy	19-Sep-16	20-Sep-16	19-Sep-16	20-Sep-16	19-Sep-16	20-Sep-16
Time	0000	19:18	03:53	19:18	03:53	19:18	07:40
Total Tank Volume	cu m	606.821	606.821	609.045	609.045	600.353	600.353
Shrinkage Factor for Total Volume		0.99858	0.99854	0.9984	0.99841	0.99844	0.99843
Total Volume Corrected	cu m	605.959	605.935	608.070	608.077	599.417	599.411
Liquid level corrected	m	3.787	0.402	3.737	0.437	3.058	1.474
Liquid Volume	cu m	492.781	19.701	493.714	23.144	387.035	144.200
Liquid Temperature	°C	-28.1	-29.1	-33.6	-33.1	-32.3	-32.7
Shrinkage Factor for Liquid Volume		0.99906	0.99926	0.99895	0.99919	0.99905	0.99915
Liquid Volume Corrected	cu m	492.318	19.686	493.196	23.125	386.667	144.077
Density at 15°C	kg/l	0.61766	0.61766	0.61766	0.61766	0.61766	0.61766
Observed Liquid Density	kg/l	0.67518	0.67643	0.68199	0.68137	0.68038	0.68088
Liquid Mass	Mt	332.403	13.316	336.355	15.757	263.080	98.099
VAPOUR PHASE							
Vapour Vol. Corrected	cu m	113.641	586.249	114.874	584.952	212.750	455.334
Vapour Temperature	°C	-27.3	-27.2	-31.9	-32.1	-32.2	-32.3
Vapour Gauge Pressure	bar	0.34700	0.35200	0.07400	0.06300	0.05800	0.05300
Vapour Density	kg/l	0.0011723	0.0011763	0.0009506	0.0009416	0.0009375	0.0009334
Vapour Mass	Mt	0.133	0.690	0.109	0.551	0.199	0.425
Total Mass	Mt	332.536	14.006	336.464	16.308	263.279	98.524
Difference		318.530		320.156		164.755	
Total Weight in Air	Mt	331.940	13.981	335.861	16.279	262.807	98.347
Difference, Weight in Air	Mt	317.959		319.582		164.460	
GSV at 15°C	cu m	538.380	22.676	544.740	26.403	426.252	159.512
Difference, GSV at 15°C	cu m	515.704		518.337		266.740	

SUB TOTALS:	Product :	anhvdrous ammo	Sub Totals
Total Metric tons (vacuo) :		1,647.789	1,647.789
Total Metric tons (air) :		1,644.835	1,644.835
GSV at 15°C, cu m :		2,667.791	2,667.791

Terminal Representative: Jose Ramires

Surveyor's name Roberto Fernandez



Report No. ES-0144-09-2016
 Date of report 22-Sep-16
 Vessel Ramagas
 Location Pantalan de Repsol, Tarragona, Spain
 Bill of Lading date 22-Sep-16

SHORE TANK REPORT
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Atmospheric pressure, bar: 1.01325

		Tank No. 23		Tank No. 24		Tank No. 27	
LIQUID PHASE		Before	After	Before	After	Before	After
Product		anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia
Date	dd-mm-yy	19-Sep-16	20-Sep-16	19-Sep-16	20-Sep-16	19-Sep-16	20-Sep-16
Time	0000	19:18	07:40	19:18	07:40	19:18	07:40
Total Tank Volume	cu m	602.946	602.946	608.010	608.010	604.049	604.049
Shrinkage Factor for Total Volume		0.99841	0.9984	0.99841	0.99842	0.99844	0.99842
Total Volume Corrected	cu m	601.987	601.981	607.044	607.050	603.106	603.094
Liquid level corrected	m	3.731	1.767	3.785	1.439	2.767	2.758
Liquid Volume	cu m	489.747	189.438	497.137	140.568	347.133	345.717
Liquid Temperature	°C	-33.2	-33.4	-33.1	-32.9	-32.4	-32.9
Shrinkage Factor for Liquid Volume		0.99896	0.99913	0.99895	0.99915	0.99908	0.99907
Liquid Volume Corrected	cu m	489.238	189.273	496.615	140.449	346.814	345.395
Density at 15°C	kg/l	0.61766	0.61766	0.61766	0.61766	0.61766	0.61766
Observed Liquid Density	kg/l	0.68149	0.68174	0.68137	0.68112	0.68051	0.68113
Liquid Mass	Mt	333.411	129.035	338.379	95.663	236.010	235.259
VAPOUR PHASE							
Vapour Vol. Corrected	cu m	112.749	412.708	110.429	466.601	256.292	257.699
Vapour Temperature	°C	-32.7	-32.6	-32.4	-32.5	-32.1	-32.2
Vapour Gauge Pressure	bar	0.03200	0.03700	0.04800	0.04200	0.06300	0.05800
Vapour Density	kg/l	0.0009162	0.0009203	0.0009293	0.0009244	0.0009416	0.0009375
Vapour Mass	Mt	0.103	0.380	0.103	0.431	0.241	0.242
Total Mass	Mt	333.514	129.415	338.482	96.094	236.251	235.501
Difference, Mass	Mt	204.099		242.388		0.750	
Total Weight in Air	Mt	332.916	129.183	337.875	95.922	235.828	235.079
Difference, Weight in Air	Mt	203.733		241.953		0.749	
GSV at 15°C	cu m	539.964	209.525	548.007	155.578	382.494	381.279
Difference, GSV at 15°C	cu m	330.439		392.429		1.215	

		Tank No. 17		Tank No. 18		Tank No. 21	
LIQUID PHASE		Before	After	Before	After	Before	After
Product		anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia
Date	dd-mm-yy	21-Sep-16	22-Sep-16	21-Sep-16	22-Sep-16	21-Sep-16	22-Sep-16
Time	0000	19:26	01:12	19:26	01:12	19:26	02:28
Total Tank Volume	cu m	605.059	605.059	606.821	606.821	609.045	609.045
Shrinkage Factor for Total Volume		0.99854	0.99854	0.99857	0.99854	0.9984	0.99841
Total Volume Corrected	cu m	604.176	604.176	605.953	605.935	608.070	608.077
Liquid level corrected	m	3.659	0.378	3.716	0.406	3.658	2.195
Liquid Volume	cu m	473.370	17.635	483.241	20.014	482.754	257.017
Liquid Temperature	°C	-29.3	-29.1	-28.2	-29.1	-33.5	-33.1
Shrinkage Factor for Liquid Volume		0.99905	0.99926	0.99907	0.99926	0.99896	0.99911
Liquid Volume Corrected	cu m	472.920	17.622	482.792	19.999	482.252	256.788
Density at 15°C	kg/l	0.61766	0.61766	0.61766	0.61766	0.61766	0.61766
Observed Liquid Density	kg/l	0.67668	0.67643	0.67531	0.67643	0.68186	0.68137
Liquid Mass	Mt	320.016	11.920	326.034	13.528	328.828	174.968
VAPOUR PHASE							
Vapour Vol. Corrected	cu m	131.256	586.554	123.161	585.936	125.818	351.289
Vapour Temperature	°C	-26.3	-27.2	-27.3	-27.2	-32.7	-32.8
Vapour Gauge Pressure	bar	0.41200	0.35200	0.34600	0.35200	0.03200	0.02700
Vapour Density	kg/l	0.0012246	0.0011763	0.0011715	0.0011763	0.0009162	0.0009121
Vapour Mass	Mt	0.161	0.690	0.144	0.689	0.115	0.320
Total Mass	Mt	320.177	12.610	326.178	14.217	328.943	175.288
Difference		307.567		311.961		153.655	
Total Weight in Air	Mt	319.603	12.587	325.594	14.192	328.354	174.974
Difference, Weight in Air	Mt	307.016		311.402		153.380	
GSV at 15°C	cu m	518.371	20.416	528.087	23.018	532.563	283.794
Difference, GSV at 15°C	cu m	497.955		505.069		248.769	

SUB TOTALS:	Product :	anhvdrous ammo	Sub Totals
Total Metric tons (vacuo) :		1,220.420	1,220.420
Total Metric tons (air) :		1,218.233	1,218.233
GSV at 15°C, cu m :		1,975.876	1,975.876

Terminal Representative: Jose Ramires

Surveyor's name Roberto Fernandez



Report No. ES-0144-09-2016
 Date of report 22-Sep-16
 Vessel Ramagas
 Location Pantalan de Repsol, Tarragona, Spain
 Bill of Lading date 22-Sep-16

SHORE TANK REPORT
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Atmospheric pressure, bar: 1.01325

		Tank No. 22		Tank No. 23		Tank No. 24	
		Before	After	Before	After	Before	After
LIQUID PHASE							
Product		anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia
Date	dd-mm-yy	21-Sep-16	22-Sep-16	21-Sep-16	22-Sep-16	21-Sep-16	22-Sep-16
Time	0000	19:26	01:12	19:26	01:12	19:26	20:01
Total Tank Volume	cu m	600.353	600.353	602.946	602.946	608.010	608.010
Shrinkage Factor for Total Volume		0.99841	0.9984	0.99841	0.99841	0.9984	0.99841
Total Volume Corrected	cu m	599.399	599.393	601.987	601.987	607.038	607.044
Liquid level corrected	m	1.468	0.404	1.763	0.428	1.431	0.462
Liquid Volume	cu m	143.353	20.484	188.833	22.421	139.432	25.191
Liquid Temperature	°C	-33.1	-33.6	-33.1	-33.2	-33.4	-33.3
Shrinkage Factor for Liquid Volume		0.99915	0.99918	0.99913	0.99919	0.99914	0.99919
Liquid Volume Corrected	cu m	143.231	20.467	188.669	22.403	139.312	25.171
Density at 15°C	kg/l	0.61766	0.61766	0.61766	0.61766	0.61766	0.61766
Observed Liquid Density	kg/l	0.68137	0.68199	0.68137	0.68150	0.68174	0.68162
Liquid Mass	Mt	97.593	13.958	128.553	15.268	94.975	17.157
VAPOUR PHASE							
Vapour Vol. Corrected	cu m	456.168	578.926	413.318	579.584	467.726	581.873
Vapour Temperature	°C	-32.1	-32.2	-32.3	-32.2	-32.0	-32.6
Vapour Gauge Pressure	bar	0.06300	0.05800	0.05200	0.05800	0.06900	0.03700
Vapour Density	kg/l	0.0009416	0.0009375	0.0009326	0.0009375	0.0009465	0.0009203
Vapour Mass	Mt	0.430	0.543	0.385	0.543	0.443	0.535
Total Mass	Mt	98.023	14.501	128.938	15.811	95.418	17.692
Difference, Mass	Mt	83.522		113.127		77.726	
Total Weight in Air	Mt	97.847	14.475	128.707	15.783	95.247	17.660
Difference, Weight in Air	Mt	83.372		112.924		77.587	
GSV at 15°C	cu m	158.701	23.477	208.752	25.598	154.483	28.644
Difference, GSV at 15°C	cu m	135.224		183.154		125.839	

		Tank No. 27		Tank No. 7		Tank No. 6	
		Before	After	Before	After	Before	After
LIQUID PHASE							
Product		anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia	anhydrous ammonia
Date	dd-mm-yy	21-Sep-16	22-Sep-16	19-Sep-16	19-Sep-16	19-Sep-16	19-Sep-16
Time	0000	19:26	01:12	15:31	17:01	17:01	18:25
Total Tank Volume	cu m	604.049	604.049	594.155	594.155	601.852	601.852
Shrinkage Factor for Total Volume		0.9984	0.99842	0.99861	0.99861	0.99841	0.99843
Total Volume Corrected	cu m	603.082	603.094	593.329	593.329	600.895	600.907
Liquid level corrected	m	2.782	0.406	2.032	0.415	3.625	1.059
Liquid Volume	cu m	349.491	21.453	237.014	22.871	481.616	93.070
Liquid Temperature	°C	-33.4	-32.9	-27.1	-27.0	-33.2	-32.7
Shrinkage Factor for Liquid Volume		0.99906	0.9992	0.99922	0.99929	0.99895	0.99917
Liquid Volume Corrected	cu m	349.162	21.436	236.829	22.855	481.110	92.993
Density at 15°C	kg/l	0.61766	0.61766	0.61766	0.61766	0.61766	0.61766
Observed Liquid Density	kg/l	0.68174	0.68112	0.67392	0.67379	0.68150	0.68088
Liquid Mass	Mt	238.038	14.600	159.604	15.399	327.876	63.317
VAPOUR PHASE							
Vapour Vol. Corrected	cu m	253.920	581.658	356.500	570.474	119.785	507.914
Vapour Temperature	°C	-32.7	-32.4	-30.9	-31.3	-32.2	-32.0
Vapour Gauge Pressure	bar	0.03200	0.04800	0.12900	0.10700	0.05800	0.06900
Vapour Density	kg/l	0.0009162	0.0009293	0.0009955	0.0009776	0.0009375	0.0009465
Vapour Mass	Mt	0.233	0.541	0.355	0.558	0.112	0.481
Total Mass	Mt	238.271	15.141	159.959	15.957	327.988	63.798
Difference		223.130		144.002		264.190	
Total Weight in Air	Mt	237.844	15.114	159.672	15.928	327.400	63.684
Difference, Weight in Air	Mt	222.730		143.744		263.716	
GSV at 15°C	cu m	385.764	24.513	258.976	25.835	531.017	103.290
Difference, GSV at 15°C	cu m	361.251		233.141		427.727	

SUB TOTALS:	Product :	anhvdrous ammo	Sub Totals
Total Metric tons (vacuo) :		905.697	905.697
Total Metric tons (air) :		904.073	904.073
GSV at 15°C, cu m :		1,466.336	1,466.336

Terminal Representative: Jose Ramires

Surveyor's name Roberto Fernandez

Report No. ES-0144-09-2016
 Date of report 22-Sep-16
 Vessel Ramagas

Location Pantalan de Repsol, Tarragona, Spain
 Bill of Lading date 22-Sep-16 Calibration Temperature, °C: 15.0
Before: Date: 18-Sep-16 Time: 18:30 Walls made of: AISI 430

SHORE LINES REPORT (Before)

Before				LIQUID PHASE								VAPOUR PHASE							DIFFERENCE (Before - After)					
Shore Line Name	Grade	Total Line Volume, cu m	Shrinkage Factor for Total Volume	Atmospheric pressure, : 1.01325										Difference Mass, Mt	Difference Weight in Air, Mt	Difference GSV at 15°C, cu m								
				% Liquid of Total Volume	Liquid Volume Corrected cu m	Liquid T°C	Density @15°C kg/l	Liquid Density at T°C, kg/l	Liquid Volume at 15°C, cu m	Liquid Mass, Mt	Vapour Volume Corrected, cu m	Vapour T°C	Vapour Gauge Pressure, bar				Vapour Density, kg/l	Vapour Mass, Mt	Total Mass, Mt	Correction Factor to air	Total Weight in Air, Mt	GSV at 15°C, cu m		
110/2 ammonia liquid	anhydrous ammonia	163.243	0.99844	100.0%	162.988	-32.4	0.61766	0.68051	0.681	110.915			0.04800	0.0009293		110.915	0.9982081	110.716	179.573					
110/3 ammonia liquid	anhydrous ammonia	364.478	0.99857	100.0%	363.957	-28.3	0.61766	0.67543	0.675	245.827			0.28300	0.0011206		245.827	0.9982081	245.386	397.997					

TOTALS Products:	anhydrous ammonia
Metric tons (vacuo):	356.742
Metric tons (air):	356.102
GSV at 15°C, cu m:	577.570

Terminal Representative: Jose Ramires

Report No. ES-0144-09-2016 Location Pantalan de Repsol, Tarragona, Spain
 Date of report 22-Sep-16 Bill of Lading date 22-Sep-16 Calibration Temperature, °C: 15.0
 Vessel Ramagas **After** Date: 22-Sep-16 Time: 04:18 Walls made of: AISI 430

SHORE LINES REPORT (After)

Before				LIQUID PHASE							VAPOUR PHASE								Atmospheric pressure, :	
Shore Line Name	Grade	Total Line Volume, cu m	Shrinkage Factor for Total Volume	% Liquid of Total Volume	Liquid Volume Corrected cu m	Liquid T°C	Density @15°C kg/l	Liquid Density at T°C, kg/l	Liquid Volume at 15°C, cu m	Liquid Mass, Mt	Vapour Volume Corrected, cu m	Vapour T°C	Vapour Gauge Pressure, bar	Vapour Density, kg/l	Vapour Mass, Mt	Total Mass, Mt	Correction Factor to air	Total Weight in Air, Mt	GSV at 15°C, cu m	
110/2 ammonia liquid	ammoniacal	163.243	0.99844	100.0%	162.988	-32.4	0.61766	0.68051	0.681	110.915			0.04800	0.0009293		110.915	0.9982081	110.716	179.573	
110/3 ammonia liquid	ammoniacal	364.478	0.99857	100.0%	363.957	-28.3	0.61766	0.67543	0.675	245.827			0.28300	0.0011206		245.827	0.9982081	245.386	397.997	

Terminal Representative: Jose Ramires