

Your Reference: 091-HABA-CHEM

Repsol S.A.

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For the attention of: Mr. Roberto Sanchez

Copy to: Ms. Laura Mendez

Report No. TR-0007-01-2016

Date of report 07-Jan-16 Vessel Coral Palmata

Location Habas A.S. Terminal, Yarimca

Product ethylene, propylene

Outturn date 07-Jan-16

We have pleasure in enclosing herewith, our report for the above referenced inspection.

The inspection was carried out according to the following reports:

CONTENTS LISTING

Document Title		Pages
Contents Listing		One
Summary Of Quantities		One
Certificate Of Quantity Discharged (ethylene, propylene)		One
Receipt For Documents		One
Time Log		One
Vessel Ullage Report Before Discharge		One
Vessel Ullage Report After Discharge		One
Vessel Ullage Report (Loadport)		One
Vessel Experience Report		One
Vessel Tank Inspection Report		One
Sample Receipt		One
Sample Report		One
Analysis Report (Grade 1: ethylene) - After Discharge		One
Analysis Report (Grade 2: propylene) - After Discharge		One
Letter Of Protest On Apparent Discrepancy (ethylene)		One
Letter Of Protest On Apparent Discrepancy (propylene)		One
Statement Of Facts		One
Shore Tank Report, Page 1 of 1		One
	Total pages:	18 pages

Should you have any query, or require any additional information, please contact Mr John Smith at our London office (telephone number +44 207 123 45 67).



Report No. TR-0007-01-2016 SUMMARY OF QUANTITIES

Date of report 07-Jan-16 Vessel Coral Palmata

Location Habas A.S. Terminal, Yarimca

Product ethylene, propylene

			Bill of Lading figures:			
BOL No.	Product name	BOL date	Metric Tons (vac)	Metric Tons (air)		
001	ethylene	07-Jan-16	1,977.661	1,971.569		
002	propylene	07-Jan-16	1,403.661	1,400.652		

Comparison of Ship's figures, Bill of Lading and Outturn quantity

Totals of the Bills Of Lading			
Totals of the bills of Lading	ethylene	propylene	Total
Total Metric tons (vacuo)	1,977.661	1,403.661	3,381.322
Total Metric tons (air)	1,971.569	1,400.652	3,372.221
GSV at 15°C, cu m	5,326.316	2,684.378	8,010.694
METRIC TONS IN VACUO (GROSS WEIGHT)			Total
Vessel after loading	1,983.930	1,403.063	3,386.993
Vessel before discharge	1,978.684	1,399.588	3,378.272
Difference	-5.246	-3.475	-3.475
% Difference	-0.264%	-0.248%	-0.248%
Bill of Lading	1,977.661	1,403.661	3,381.322
Outturn quantity	1,970.952	1,399.111	3,370.063
Difference	-6.709	-4.550	-11.259
% Difference	-0.339%	-0.324%	-0.333%
METRIC TONS IN AIR (GROSS WEIGHT)	-	-	Total
Vessel after loading	1,977.819	1,400.055	3,377.874
Vessel before discharge	1,972.589	1,396.588	3,369.177
Difference	-5.230	-3.467	-8.697
% Difference	-0.264%	-0.248%	-0.257%
Bill of Lading	1,971.569	1,400.652	3,372.221
Outturn quantity	1,964.881	1,396.112	3,360.993
Difference	-6.688	-4.540	-11.228
% Difference	-0.339%	-0.324%	-0.333%
CUBIC METRES AT 15°C (GROSS STANDARD VOLUME)		-11.259	Total
Vessel after loading	5,343.20	2,683.23	8,026.43
Vessel before discharge	5,329.07	2,676.59	8,005.66
Difference	-14.13	-6.65	-6.65
% Difference	-0.264%	-0.248%	-0.248%
Bill of Lading	5,326.32	2,684.38	8,010.69
Outturn quantity	5,308.25	2,675.68	7,983.92
Difference	-18.07	-8.70	-26.77
% Difference	-0.339%	-0.324%	-0.334%

Remarks:

Liquid and vapour densities of ethylene calculated as per NBS 1045-1981 by R.D. McCarty and R.T. Jacobsen

Liquid and vapour densities of propylene calculated as per IUPAC, Propylene (Propene), International Thermodynamic Tables of Fluid State - 7, by S. Angus, B. Armstrong, K. M. de Reuck, published by Pergamon Press in 1980



CERTIFICATE OF QUANTITY DISCHARGED

Report No. TR-0007-01-2016

Date of report 07-Jan-16 Vessel Coral Palmata

Location Habas A.S. Terminal, Yarimca

Product ethylene, propylene

Outturn date 07-Jan-16

Shore tank figures:

GRAND TOTALS:	<u>ethylene</u>	<u>propylene</u>	Grand Totals
Total Metric tons in vacuo :	1,970.952	1,399.111	3,370.063
Total Long tons in vacuo :	1,939.824	1,377.014	3,316.838
Total Short tons in vacuo :	2,172.603	1,542.256	3,714.859
Total Pounds in vacuo :	4,345,205.366	3,084,511.761	7,429,717.127
1 Pound / 1 Metric ton :	0.00045359	0.00045359	
Weight Correction Factor :	0.996919632988958	0.997856164678524	
Total Metric tons in air:	1,964.881	1,396.112	3,360.993
Total Long tons in air :	1,933.849	1,374.063	3,307.912
Total Short tons in air :	2,165.911	1,538.950	3,704.861
Total Pounds in air :	4,331,821.102	3,077,900.098	7,409,721.200
US Gallons at 60°F : US Barrels at 60°F :	1,408,374.680	707,865.220	2,116,239.900
Standard Volume at 15°C, cu m :	5,308.247	2,675.676	7,983.923
Average Density at 15°C, kg/l:	0.3713	0.5229	

Liquid and vapour densities of ethylene calculated as per NBS 1045-1981 by R.D. McCarty and R.T. Jacobsen

Liquid and vapour densities of propylene calculated as per IUPAC, Propylene (Propene), International Thermodynamic Tables of Fluid State - 7, by S. Angus, B. Armstrong, K. M. de Reuck, published by Pergamon Press in 1980



RECEIPT FOR DOCUMENTS

Report No. TR-0007-01-2016

Date of report 07-Jan-16 Vessel Coral Palmata

Location Habas A.S. Terminal, Yarimca

Product ethylene, propylene

Outturn date 07-Jan-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 Discharge	One
Ullage Report after Discharge	One
Vessel Experience Report	One
Tank Inspection Report	One
Total Pages:	6

Instructions regarding documents:	1 set for Vessel's own use

Should you have any query, or require any additional information, please contact Mr John Smith at our London office (telephone number +44 207 123 45 67).

Chief Officer of "Coral Palmata": V. Koshevoy

Report No. TR-0007-01-2016 **TIME LOG**

Date of report 07-Jan-16 Vessel Coral Palmata

Location Habas A.S. Terminal, Yarimca

Product ethylene, propylene

Outturn date 07-Jan-16

Time	Date	<u> </u>		Operations				
11:55	06-Jan-16	Vessel ar	wixed at reads	1				
11:55	06-Jan-16		Vessel arrived at roads (End of Sea Passage) Notice of Readiness tendered					
12:10	06-Jan-16 06-Jan-16			ing berthing instructions				
13:20	06-Jan-16 06-Jan-16			<u> </u>				
16:10	06-Jan-16 06-Jan-16	Pilot on b		ree Pratique granted				
16:10	06-Jan-16 06-Jan-16			ding to houth				
			weigh - procee					
17:00	06-Jan-16			irst line ashore)				
17:15	06-Jan-16		r on board	hauth was 4				
17:45	06-Jan-16		fast alongside	berth no. 1				
17:50	06-Jan-16		nks measured					
18:00	06-Jan-16	Hose con						
18:15	06-Jan-16			eived/accepted				
18:25	06-Jan-16		Iculation compl					
18:30	06-Jan-16		ced Dischargin	9				
04:00	07-Jan-16		ed Discharging					
04:30	07-Jan-16		ROB in Vessel's tanks measured					
05:00	07-Jan-16	Hose disconnected						
05:00	07-Jan-16	Discharged quantity calculation completed						
05:10	07-Jan-16		Inspector's documents on board					
05:30	07-Jan-16		argo document					
05:35	07-Jan-16		r left the vessel					
05:50	07-Jan-16	Vessel sa	iled (ETS)					
	DEL	AYS		REASON				
L	From		То					
11:55	06-Jan-16	16:10	06-Jan-16	Awaiting free jetty				
04:05	07-Jan-16	04:30	07-Jan-16	Blowing lines				

		Remarks:	(*)	- As per information received from the Master of the vessel
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Sea water temperature, °C	General weather condition
3.5	Calm

Product Name	Pumping time	Outturn figure	Pumping rate	
Product Name	hours minutes	Mt air	Mt air / hour	
ethylene	9 hours 30 minutes	1964.881	206.830	
propylene	9 hours 30 minutes	1396.112	146.959	

Chief Officer of "Coral Palmata": V. Koshevoy

Date of report 07-Jan-16 Vessel Coral Palmata

Location Habas A.S. Terminal, Yarimca

Product ethylene, propylene

Outturn date 07-Jan-16

UNITS: Volume: cu.m. Linear: m. Temp: °C Pressure: bar Atmospheric pressure: 1.01325 Tank No. 1P 1S 2P 2S 3P ethylene ethylene ethylene Cargo ethylene propylene propylene 1,079.130 1,078.520 1,252.750 100% capacity of tanks: 1,253.350 1,250.460 1,249.850 Observed Liquid Innage, m 5.222 5.230 8.282 8.270 8.263 8.251 Liquid Temperature, °C -102.20 -102.00 -101.40 -101.10 -51.40 -51.10 Vapour Temperature, °C -101.10 -101.00 -100.80 -101.40 -46.90 -46.30 0.00675 0.00675 Vapour Gauge Pressure, bar 0.56675 0.56675 0.58675 0.58675

VESSEL ULLAGE REPORT BEFORE

DISCHARGE

Liquid Phase Total: 3,375.490 MT (vacuo) Correction for Trim / List, m 0.008 0.008 -0.002 -0.002 -0.002 -0.002 Correction for Float Buoy., m 0.007 0.007 0.007 0.007 0.007 0.007 Correction for Tape, m 0.001 0.001 Corrected Liquid Innage, m 5.238 5.246 8.287 8.275 8.268 8.256 Liquid Volume, m³ 609.450 608.708 1,148.076 1,146.120 1,145.210 1,141.434 Shrinking Factor 0.996142 0.996136 0.996162 0.996172 0.997812 0.997822 Volume corrected, m³ 606.356 607.099 1,143.670 1,141.733 1,142.704 1,138.948 Liquid Density, Mt/m³ 0.3713 0.3713 0.3713 0.3713 0.5229 0.5229 343.016 343.254 645.602 644.052 701.163 698.403 Liquid Metric tons (vac)

Vapour Phase Total: 2.782 MT (vacuo)

Vapour Volume, m ³	470.422	469.070	105.274	106.630	105.250	108.416	
Corr.Vap.Vol. for <i>Inert Gas</i>	470.422	469.070	105.274	106.630	105.250	108.416	
Shrinking Factor	0.996172	0.996175	0.996182	0.996162	0.997961	0.997980	
Volume corrected, m ³	468.621	467.276	104.872	106.221	105.035	108.197	
Vapour Density, Mt/m ³	0.002401	0.002414	0.002439	0.002364	0.000103	0.000105	
Vapour Metric tons (vac)	1.125	1.128	0.256	0.251	0.011	0.011	
Total Metric tons (vac)	344.141	344.382	645.858	644.303	701.174	698.414	
Correction Factor to air	0.99692	0.99692	0.99692	0.99692	0.99786	0.99786	
Total Metric tons (air)	343.081	343.321	643.869	642.318	699.671	696.917	
GSV at 15°C, cu m	926.854	927.503	1,739.451	1,735.263	1,340.933	1,335.655	

Before discharge:

Inert gases, %

Total Metric tons (vac)	344.141	344.382	645.858	644.303	701.174	698.414	
Total Metric tons (air)	343.081	343.321	643.869	642.318	699.671	696.917	
GSV at 15°C, cu m	926.854	927.503	1,739.451	1,735.263	1,340.933	1,335.655	

Total quantity before Total <u>ethylene</u> propylene discharge: Metric Tons (vacuo) 1,978.684 1,399.588 3,378.272 1,972.589 1,396.588 3,369.177 Metric Tons (air) Cubic Metres at 15°C 5,329.071 2,676.588 8,005.659

Sea Condition: Calm Remarks:

Draft FWD : 6.80 m

AFT : 7.30 m Vessel calculations based upon calibration tables

TRIM: 0.50 m for the Gas Carrier "Coral Palmata"

LIST: Nil

Chief Officer of "Coral Palmata": V. Koshevoy

Date of report 07-Jan-16 Vessel Coral Palmata

Location Habas A.S. Terminal, Yarimca

Product ethylene, propylene

Outturn date 07-Jan-16

UNITS: Volume: cu.m. Linear: m. Temp: °C Pressure: bar Atmospheric pressure: 1.01325 Tank No. 1P **1S** 2P 2S 3P ethylene ethylene propylene Cargo ethylene ethylene propylene 1,079.130 1,078.520 1,253.350 1,252.750 1,249.850 100% capacity of tanks: 1,250.460 Observed Liquid Innage, m Liquid Temperature, °C Vapour Temperature, °C -100.90 -100.90 -101.10 -101.10 -46.00 -46.00 0.00675 0.00675 Vapour Gauge Pressure, bar 0.56675 0.56675 0.58675 0.58675 Inert gases, % **Liquid Phase** Total, Mt vac: MT (vacuo) Correction for Trim / List, m Correction for Float Buoy., m Correction for Tape, m Corrected Liquid Innage, m Liquid Volume, m³ Shrinking Factor Volume corrected, m3 Liquid Density, Mt/m³ Liquid Metric tons (vac) **Vapour Phase** 17.095 MT (vacuo) Vapour Volume, m³ 1.079.130 1.078.520 1,253,350 1,252,750 1,250,460 1,249,850 Corr.Vap.Vol. for *Inert Gas* 1,079.130 1,078.520 1,253.350 1,252,750 1,250.460 1,249.850 Shrinking Factor 0.997990 0.996179 0.996179 0.996172 0.996172 0.997990 Volume corrected, m³ 1,248.552 1,247.947 1,075.006 1.074.399 1.247.954 1.247.338 Vapour Density, Mt/m³ 0.002427 0.002427 0.002401 0.002401 0.002358 0.002358 Vapour Metric tons (vac) 2.609 2.608 2.998 2.996 2.943 2.941 After discharge: Total Metric tons (vac) 2.609 2.608 2.998 2.996 2.943 2.941 0.99786 Correction Factor to air 0.99692 0.99692 0.99692 0.99692 0.99786 Total Metric tons (air) 2.601 2.600 2.989 2.987 2.937 2.935 GSV at 15°C, cu m 7.027 8.074 7.024 8.069 5.628 5.624 Quantity Discharged: Total Metric tons (vac) 341.532 341.774 642.860 641.307 698.231 695.473 Total Metric tons (air) 340.721 640.880 693.982 340.480 639.331 696.734 GSV at 15°C, cu m 919.827 920.479 1,731.377 1,727.194 1,335.305 1,330.031

VESSEL ULLAGE REPORT AFTER

DISCHARGE

<u>ethylene</u>	<u>propylene</u>	<u>Total</u>
1,967.473	1,393.704	3,361.177
1,961.412	1,390.716	3,352.128
5,298.877	2,665.336	7,964.213
	1,967.473 1,961.412	1,967.473 1,393.704 1,961.412 1,390.716

Sea Condition: Calm Remarks:

Draft FWD : 3.30 m

AFT : 5.60 m Vessel calculations based upon calibration tables

TRIM: 2.30 m for the Gas Carrier "Coral Palmata"

LIST: Nil

Chief Officer of "Coral Palmata": V. Koshevoy

Date of report 07-Jan-16 Vessel Coral Palmata

Loadport Odessa

Product ethylene, propylene

Bill of Lading date 07-Jan-16

UNITS: Volume: cu.m. Linear: m. Temp: °C Pressure: bar Atmospheric pressure: 1.01325 Tank No. 1P **1S** 2P 2S 3P ethylene propylene Cargo ethylene ethylene ethylene propylene 1,078.520 1,252.750 100% capacity of tanks: 1,079.130 1,253.350 1,250.460 1,249.850 Observed Liquid Innage, m 5.220 5.230 8.281 8.272 8.262 8.253 Liquid Temperature, °C -102.10 -102.00 -101.40 -101.10 -51.40 -51.10 Vapour Temperature, °C -1.10 -1.00 -0.80 -1.40 -45.10 -46.70 0.00675 Vapour Gauge Pressure, bar 0.57675 0.57675 0.58675 0.58675 0.00675 Inert gases, % **Liquid Phase** Total: 3,385.716 MT (vacuo) Correction for Trim / List, m 0.008 -0.002 -0.002 0.008 -0.002 -0.002 Correction for Float Buoy., m 0.007 0.007 0.007 0.007 0.007 0.007 Correction for Tape, m 0.001 0.001 Corrected Liquid Innage, m 5.236 5.246 8.286 8.277 8.267 8.258 Liquid Volume, m³ 608.982 609.870 1,148.543 1,145.874 1,146.400 1,142.350 Shrinking Factor 0.999335 0.999350 0.999368 0.999379 0.999368 0.999379 Volume corrected, m3 608.577 609.474 1,147.817 1,145.162 1,145.675 1,141.641 Liquid Density, Mt/m³ 0.3713 0.3713 0.3713 0.3713 0.5229 0.5229 344.150 344.597 647.943 645.986 702.986 Liquid Metric tons (vac) 700.054 **Vapour Phase** Total: 1.277 MT (vacuo) Vapour Volume, m³ 470.148 468,650 104.807 106.876 104.060 107.500 Corr.Vap.Vol. for *Inert Gas* 470.148 468.650 104.807 106.876 104.060 107.500 0.999380 0.999368 Shrinking Factor 0.999377 0.999386 0.999323 0.999340 Volume corrected, m³ 469.855 468.359 104.743 106.808 103.990 107,429 Vapour Density, Mt/m3 0.001088 0.001086 0.001105 0.001105 0.000111 0.000103 Vapour Metric tons (vac) 0.511 0.509 0.116 0.118 0.012 0.011 646.104 702.998 Total Metric tons (vac) 344.661 345.106 648.059 700.065 Correction Factor to air 0.9969196 0.9969196 0.9969196 0.9969196 0.9978562 0.9978562 Total Metric tons (air) 343.599 344.043 646.063 644.114 701.491 698.564 GSV at 15°C, cu m 928.255 929.453 1,745.378 1,740.113 1,344.421 1,338.812 Total Metric tons (vac) 344.661 345.106 648,059 646.104 702.998 700.065 Total Metric tons (air) 343.599 344.043 646.063 644.114 701.491 698.564

VESSEL ULLAGE REPORT

(LOADPORT)

		<u> </u>	
Metric Tons (vacuo)	1,983.930	1,403.063	3,386.993
Metric Tons (air)	1,977.819	1,400.055	3,377.874
Cubic Metres at 15°C	5,343.199	2,683.233	8,026.432

propylene

1,745.378

1,740.113

1,344.421

1,338.812

Total

Sea Condition: Calm Remarks:

ethylene

928.255

Draft FWD :

AFT : Vessel calculations based upon calibrations tables

TRIM: for the Gas Carrier "Coral Palmata"

929.453

LIST: Nil

Chief Officer of "Coral Palm

GSV at 15°C, cu m



Date of report 07-Jan-16 Vessel Coral Palmata

Location Habas A.S. Terminal, Yarimca

Product ethylene, propylene

Outturn date 07-Jan-16

Voyage	Bill of Lading date	Cargo	Loadport	Vessel's figure Mt	Bill of Lading Mt	Vessel Load Ratio	Quali- fying
Last	01-Jan-16	ethylene	Midia	2,049.060	2,086.624	0.98179	Yes
2nd last	23-Nov-15	Propane	Constanta	2,429.700	2,472.350	0.98301	Yes
3rd last	12-Oct-15	Butane	Odessa	2,471.430	2,500.718	0.98800	No
4th last	26-Sep-15	ethylene	Odessa	2,560.350	2,600.794	0.98424	Yes
5th last	15-Aug-15	ethylene	Midia	2,618.850	2,664.228	0.98311	Yes
6th last	07-Aug-15	Propane	Constanta	2,616.120	2,661.076	0.98309	Yes
7th last	23-Jul-15	Butane	Botas	2,477.670	2,517.660	0.98411	Yes
8th last	12-Jul-15	Propane	Szczecin	2,308.020	2,345.088	0.98422	Yes
9th last	23-Jun-15	Propane	Amsterdam	2,549.820	2,591.338	0.98418	Yes
10th last	15-Jun-15	ethylene	Odessa	2,239.380	2,269.440	0.98678	Yes

Voyages excluded :	Total	24,320.400	24,709.316
When Bill Of Lading is based on shipboard	Total Qualifying	21,848.970	22,208.598
measurements.	First average		0.98426
Voyages prior to any structural cargo tank modifications.		+ 0.3 %	0.98721
		- 0.3 %	0.98131
Lighterings.	Second Average		0.98381
		+ 0.3 %	0.98676
First voyage after dry dock.		- 0.3 %	0.98086

Ship's figures this voyage (Excluding ROB)	3,361.177	Vessel Experience Factor
Bill of Lading this voyage	3,381.322	based on 2nd average
Vessel loaded ratio this voyage	0.99404	0.9838

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 "Coral Palmata": V. Koshevoy

For and on behalf of Global Survey Solutions Limited Surveyor's name A. Sezer

VESSEL EXPERIENCE REPORT



VESSEL TANK INSPECTION REPORT

Report No. TR-0007-01-2016
Date of report 07-Jan-16
Vessel Coral Palmata

Location Habas A.S. Terminal, Yarimca

Product ethylene, propylene

Outturn quantity 07-Jan-16

<u>Time:</u> <u>Date:</u>

Tank inspection was carried out: 04:30 07-Jan-16

Inspection of "Coral Palmata" at on the January 7, 2016.

GENERAL INFORMATION

Name of Vessel: Coral Palmata

Loading Place: Habas A.S. Terminal, Yarimca Installation: Gas Terminal, berth No. 1

Date: 07-Jan-16 Cargoes to be loaded: ethylene propylene

INFORMATION OBTAINED ON BOARD

Previous cargoes: ethylene in cargo tanks: 1P, 1S, 2P, 2S

propylene 3P, 3S

Quantity remaining on board: 17.049 Metric Tons (air)

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 and on behalf of Global Survey Solutions Limited Chief Officer of "Coral Palmata": V. Koshevoy Surveyor's name A. Sezer

Date of report 07-Jan-16 Vessel Coral Palmata

Location Habas A.S. Terminal, Yarimca

Product ethylene, propylene

Outturn date 07-Jan-16

Product	Sample source	Size	Sample description	Seal No.	Sample Distribution
ethylene	In-line autosampler	1 Ltr.	Taken during discharge	12345	For Receiver
ethylene	Single ship's tank composite	1 Ltr.	Multiple ship's tank composite	12346	For Receiver
propylene	In-line autosampler	1 Ltr.	Taken during loading	12347	For Receiver
propylene	Single ship's tank composite	1 Ltr.	Multiple ship's tank discharge	12348	For Receiver
	<u> </u>				

SAMPLE RECEIPT

Date: 07-Jan-16 Receipt acknowledged

Chief Officer of "Coral Palmata": V. Koshevoy

Surveyor's name A. Sezer

Date of report 07-Jan-16 Vessel Coral Palmata

Location Habas A.S. Terminal, Yarimca

Product ethylene, propylene

Outturn date 07-Jan-16

Product	Sample source	Size	Sample description	Seal No.	Sample Distribution
FIOUUCL		Size		Seal NO.	
ethylene	In-line autosampler	1 Ltr.	Taken during discharge	12351	For testing
propylene	In-line autosampler	1 Ltr.	Taken during discharge	12352	For testing

SAMPLE REPORT

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Report No. TR-0007-01-2016
Date of report 07-Jan-16

Vessel Coral Palmata

Location Habas A.S. Terminal, Yarimca

Product ethylene
Outturn date 07-Jan-16
Sample submitted as: ethylene

Sample drawn: by In-line autosampler

Sample description: In-line autosample taken during loading

Received on: 06-Jan-16

Testing performed by: Global Survey Solutions Limited Laboratory

Testing performed on: 07-Jan-16

Test	Units	Method	Specification	Result
Ethylene	volume %	Gas chromatography	99.9 min.	99.91
Carbon Monoxide	volume ppm	Gas chromatography	5 max.	4
Oxygen	volume ppm	Gas chromatography	2 max.	1
Carbon Dioxide	volume ppm	Gas chromatography	6 max.	5
Sulphur	volume ppm	ASTM D4468	3 max.	2
Hydrogen	volume ppm	Gas chromatography	5 max.	4
Acetylene	volume ppm	Gas chromatography	5 max.	3
C3 and heavier	volume ppm	Gas chromatography	5 max.	3
Methane and Ethane	volume ppm	Gas chromatography	1000 max.	872
Water	volume ppm	Gas chromatography	5 max.	4
Methanol	volume ppm		3 max.	2

ANALYSIS REPORT (Grade 1: ethylene)

After Discharge

Chemist:

Report No. TR-0007-01-2016
Date of report 07-Jan-16

Vessel Coral Palmata

Location Habas A.S. Terminal, Yarimca

Product propylene
Outturn date 07-Jan-16
Sample submitted as: propylene

Sample drawn: by In-line autosampler

Sample description: In-line autosample taken during loading

Received on: 06-Jan-16

Testing performed by: Global Survey Solutions Limited Laboratory

Testing performed on: 07-Jan-16

Test	Units	Method	Specification	Result
Propylene	volume %	Gas chromatography	99.5 min.	99.52
Propane + Ethane	volume %	Gas chromatography	0.5 max.	0.38
Ethane	ppm volume	Gas chromatography	2000 max.	937
Ethylene	ppm volume	Gas chromatography	10 max.	8
Acetylene	ppm volume	ASTM D4468	10 max.	6
Methyl acetylene + propadiene	ppm volume	Gas chromatography	20 max.	14
Non saturated C4	ppm volume	Gas chromatography	5 max.	3
Water	ppm mass	UOP 344	30 max.	23
Hydrogen Sulphide (H2S)	ppm mass	Detection tube	2 max.	1
Total Sulphur	ppm volume	ASTM D4468	2 max.	1
Oxygen	ppm volume	Gas chromatography	5 max.	3
Carbon Monoxide	ppm volume	Gas chromatography	5 max.	4

ANALYSIS REPORT (Grade 2: propylene)

After Discharge

Chemist:



LETTER OF PROTEST ON APPARENT DISCREPANCY

Report No. TR-0007-01-2016

Date of report 07-Jan-16 Vessel Coral Palmata

Location Habas A.S. Terminal, Yarimca

Product ethylene
Outturn date 07-Jan-16

To: To Whom It May Concern

At the Port of:

Dear Sir,

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

APPARENT DISCREPANCY:

Grade 1	ethylene
Including OBQ/ROB	Metric Tons in vacuo (Gross Weight)
Vessel after loading	1,983.930
Vessel before discharge	1,978.684
Difference	-5.246
% Difference	-0.264%
Bill of Lading	1,977.661
Outturn quantity	1,970.952
Difference	-6.709
% Difference	-0.339%

Including OBQ/ROB

Metric	Tons	in	air	(Gross	W	/eig	ht)
--------	------	----	-----	--------	---	------	----	---

Vessel after loading	1,977.819
Vessel before discharge	1,972.589
Difference	-5.230
% Difference	-0.264%
Bill of Lading	1,971.569
Outturn quantity	1,964.881
Difference	-6.688
% Difference	-0.339%

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. John Smith

Global Survey Solutions Ltd.

Tel: +44 207 123 45 67 Email: ops@surveycalc.com Email: info@surveycalc.com

Very truly yours: Receipt acknowledged:

Date: Date: Signed by: Signed by:

For: Surveyor For: Ship



LETTER OF PROTEST ON APPARENT DISCREPANCY

Report No. TR-0007-01-2016

Date of report 07-Jan-16 Vessel Coral Palmata

Location Habas A.S. Terminal, Yarimca

Product propylene Outturn date 07-Jan-16

To: To Whom It May Concern

At the Port of:

Dear Sir,

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

APPARENT DISCREPANCY:

Grade 2	propylene
Including OBQ/ROB	Metric Tons in vacuo (Gross Weight)
Vessel after loading	1,403.063
Vessel before discharge	1,399.588
Difference	-3.475
% Difference	-0.248%
Bill of Lading	1,403.661
Outturn quantity	1,399.111
Difference	-4.550
% Difference	-0.324%

Including OBQ/ROB

Metric Tons in air (Gross Weight)

Vessel after loading	1,400.055
Vessel before discharge	1,396.588
Difference	-3.467
% Difference	-0.248%
Bill of Lading	1,400.652
Outturn quantity	1,396.112
Difference	-4.540
% Difference	-0.324%

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. John Smith

Global Survey Solutions Ltd.

Tel: +44 207 123 45 67 Email: ops@surveycalc.com Email: info@surveycalc.com

Very truly yours: Receipt acknowledged:

Date: Date: Signed by: Signed by:

For: Surveyor For: Ship



STATEMENT OF FACTS

Report No. Date of report Vessel	TR-0007-01-2016 07-Jan-16 Coral Palmata
Location Product Outturn date	Habas A.S. Terminal, Yarimca ethylene, propylene 07-Jan-16
outturn dute	or suit to
For the attention of: Copy to:	To Whom It May Concern
At the Port of:	Tarragona
Dear Sirs,	
On behalf of our principa occurrence was noted:	Il(s), we hereby notify you that on the day of the following
	elling the measurements taken on board Gas Carrier "Ramagas" may affect on accuracy of y of ethylene and propylene in ship's tanks.
Very truly yours:	
Date	
Signed by	
	: Surveyor



Date of report 07-Jan-16 Vessel Coral Palmata

Location Habas A.S. Terminal, Yarimca

Outturn date 07-Jan-16

SHORE TANK REPORT

Page 1 of 1

Atmospheric pressure, bar: 1.01325

		Tank No. K5 Tank No. K6		Tank No.			
LIQUID PHASE		Before	After	Before	After	Before	After
Product		ethylene	ethylene	propylene	propylene		
Date	dd-mm-yy	06-Jan-16	07-Jan-16	06-Jan-16	07-Jan-16		
Time	0000	18:30	04:00	18:30	04:00		
Total Tank Volume	cu m	4,998.449	4,998.449	4,994.324	4,994.324		
Shrinkage Factor for Total	Volume	0.99621	0.99618	0.99792	0.99786		
Total Volume Corrected	cu m	4,979.505	4,979.355	4,983.936	4,983.636		
Liquid level corrected	m		13.430		8.721		
Liquid Volume	cu m		3,516.071		2,283.322		
Liquid Temperature	°C		-101.1		-51.2		
Shrinkage Factor for Liquid	d Volume		0.99766		0.99878		
Liquid Volume Corrected	cu m		3,507.843		2,280.536		
Density at 15°C	kg/l	0.3713	0.3713	0.5229	0.5229		
Observed Liquid Density	kg/l		0.5644		0.6135		
Liquid Mass	Mt		1,979.827		1,399.109		
VAPOUR PHASE							
Vapour Vol. Corrected	cu m	4,979.505	1,471.512	4,983.936	2,703.100		
Vapour Temperature	°C	-100.0	-100.5	-48.0	-48.5		
Vapour Gauge Pressure	bar	1.08675	3.48675	0.88675	2.18675		
Molecular Mass	g/mole	0.004	0.004	0.002	0.004		
Vapour Density	kg/l	0.002543	0.002574	0.002059	0.0043		
Vapour Mass	Mt	12.663	3.788	0.010	0.012		
Total Mass	Mt	12.663	1,983.615	0.010	1,399.121		
Difference, Mass	Mt).952	1,399			
Total Weight in Air	Mt	12.624	1,977.505	0.010	-/		
Difference, Weight in Air	Mt	1,964		1,396			
GSV at 15°C	cu m	34.104		0.019			
Difference, GSV at 15°C	cu m	5,308	3.247	2,675	5.676		

		Tank No.		Tank No.		Tank No.	
LIQUID PHASE		Before	After	Before	After	Before	After
Product							
Date	dd-mm-yy						
Time	0000						
Total Tank Volume	cu m						
Shrinkage Factor for Total	Volume						
Total Volume Corrected	cu m						
Liquid level corrected	m						
Liquid Volume	cu m						
Liquid Temperature	°C						
Shrinkage Factor for Liquic	l Volume						
Liquid Volume Corrected	cu m						
Density at 15°C	kg/l						
Observed Liquid Density	kg/l						
Liquid Mass	Mt						
VAPOUR PHASE							
Vapour Vol. Corrected	cu m						
Vapour Temperature	°C						
Vapour Gauge Pressure	bar						
Molecular Mass	g/mole						
Vapour Density	kg/l						
Vapour Mass	Mt						
Total Mass	Mt						
Difference							
Total Weight in Air	Mt						
Difference, Weight in Air	Mt						
GSV at 15°C	cu m						
Difference, GSV at 15°C	cu m						

SUB TOTALS: Product :	ethylene	propylene	Sub Totals	
Total Metric tons (vacuo):	1,970.952	1,399.111	3,370.063	
Total Metric tons (air):	1,964.881	1,396.112	3,360.993	
GSV at 15°C, cu m :	5,308.247	2,675.676	7.983.923	