

Vallis Commodities Limited

Integrated Supply Chain and Commodity Management

**A Show Reel of the Collateral Management of
Petroleum Products**



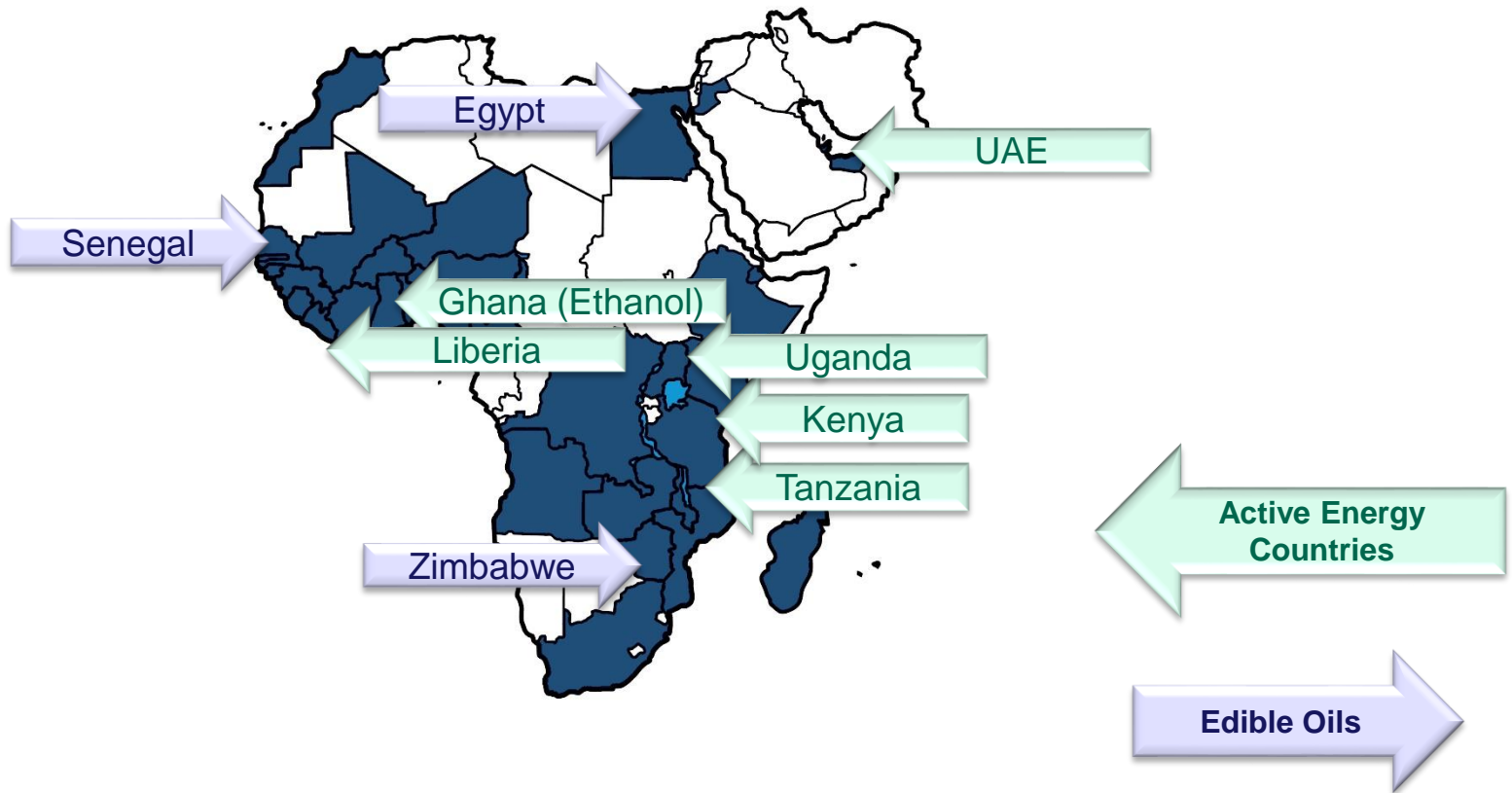
September
2016

Contents

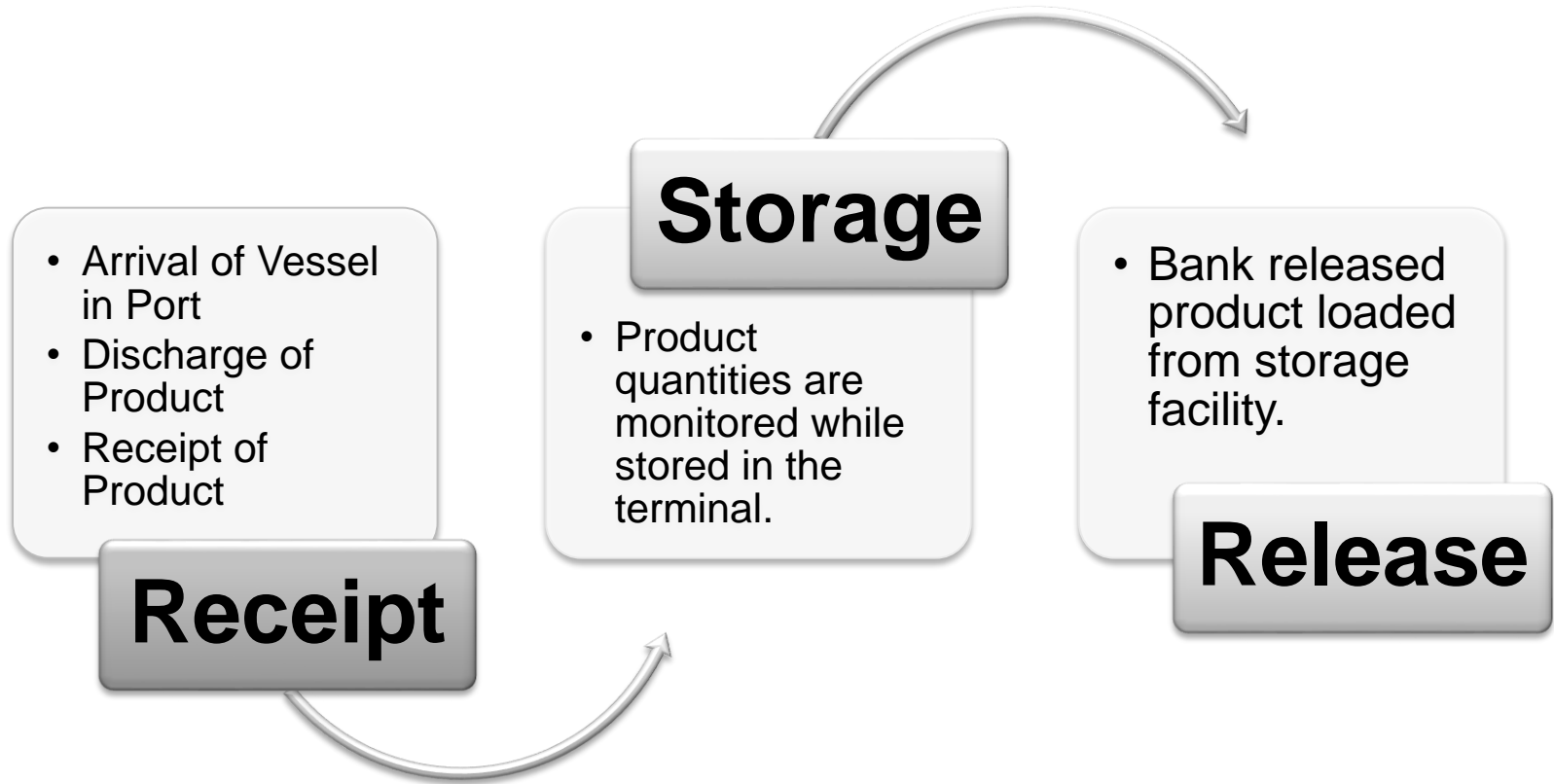
- Current Operations (Bulk Liquids)
- Receipt of Goods
- Storage of Goods
- Release of Goods



Our Fuel Operations



Process Flow



Step 1



Receipt

Receipt of Goods

Receipt

Bill of Lading (BoL)

- DCL receives BoL Copy
 - Expected Product Quantity and Quality
 - Vessel Details
- DCL receives BoL Original
 - 'Post Box'
 - BoL to Clearing and Forwarding Agent

شركة أرامكو السعودية توتال للتكرير والمزج والمنتجات البترولية (ساتورب)
SAUDI ARAMCO TOTAL Refining and Petrochemical Company (SATORP)

Page No 1
BILL OF LADING
Reference No. TO-0MA0218D5L002

Shipper: SATORP
SAUDI ARAMCO TOTAL Refining and Petrochemical Company

Consignee:
To the Order of
TOTSA - TOTAL OIL TRADING SA
Notify address

ENDORSE TO THE ORDER OF
ZENA PETROLEUM LIMITED
FOR
250 MT ASFO
AUTHORIZED
SIGNATORY
ZENA PETROLEUM LIMITED

Vessel: IMO 938863-GULF CRYSTAL Port of loading: KTFP Al-Jubail Saudi Arabia

Part of discharge:
DAR ES SALAM, Tanzania. For Order

Gross Quantity
Shipper's Description of Goods: GASOIL 82,204.867 MT @ 15° C
GASOIL 87,845.813 Metric Tonnes (MT) (A)
GASOIL 517,311 US Barrels @ 60° F

COPY
NON NEGOTIABLE

DELIVER TO THE ORDER OF:
Zena Petroleum Ltd
ADDUJ ENERGY SA
Jan 25 2015
Hassan

Freight payable as per charter party
Clean on board
(of which NCL on deck at Shipper's risk; the Carrier not being responsible for loss or damage howsoever arising)

Freight payable as per CHARTER-PARTY Dated:	SHIPPED at the Port of Loading in apparent good order and condition on board the Vessel for carriage to the Port of Discharge or to any other port as may be ordered by the Charterparty.
FREIGHT ADVANCE Received on account of freight	By WHOMSEVER the Master or Agent of the vessel signs the number of Bills of Lading indicated below together with the date, any one of which being accompanied by the other, shall be valid for presentation.
Time used for loading: days hours	FOR CONDITIONS OF CARRIAGE SEE THE MASTER'S SIGNATURE
Freight payable at: Number of original B/L: 04	Place and date of issue: Al-Jubail Saudi Arabia 18 February 2015 For or on behalf of the Master: CAPT. RAHUL K. SHARMA MASTER SIGNATURE

Receipt of Goods

Receipt

- DCL meets with Storage Facility operations
 - Ullage.
 - Tanks.
 - Timing of berth at Jetty/SPM.
 - Loading Sequence.
 - Prepare for Discharge.
- Relationships are Key



Receipt of Goods

Discharge

- Product sampled for Quality.
 - 3rd Party and Local Revenue Authority.
- Cleared and allowed to Discharge.
- DCL's role at the Jetty – **Observation.**

- Locked/sealed and gauged.
- DCL Monitors Ullage Inspections.
- DCL checks lines where possible.
- Final Analysis performed.
 - 3rd Party Surveyor
- Ship to Shore Log completed.



Receipt of Goods

Ship to Shore Log

Name Of Vessel:	MT Mercer	Start Date:	20/02/2015	Finish Date:	20/02/2015
Product & Qty:	Gasoline (PMS) 3,312.874 mt	Product & Qty:	Gasoil (AGO) 6,954.198 mt	Product & Qty:	
Importer:	Dudley Smith Oil	Fuel Supervisor:	A n Other	Banker:	Barr-Sim Plc.

Date and Time	Occurrence	Name & Signature
Aug 25 2013 0945	Attended the ships brief where it was declared that tanks 2 and 402 will receive the Crude Palm Oil. Tanks 2 and 402 will receipt the Crude Soya bean oil.	A n Other & Other
Aug 25 2013 1500	Gauging party confirm all tanks have sufficient ullage and opening gauges are:	A n Other & Other
	Crude Palm Oil - Tank 2: 20' 11 % Tank 402: 6' 5 % Water receipt (Tx9) tank: 2' 2 %	A n Other & Other
	Crude Soya bean oil - Tank 2: 2' 2 % Tank 402: 5' 7 %	A n Other & Other

Receipt of Goods

Receipt

-
- 5-10 days following the discharge.
- Based on Shore Figures received in tank.
- Local Revenue Authority.
- 3rd Party, independent surveyor.
 - Intertek
 - Inspectorate
 - SGS
- Prorated outturn report.
 - Storage receipt written
 - **Care Custody Control**

Surveyors & Marine Services Ltd
Surveying and Inspection

BASED ON BILL OF LADING FIGURES.

	WEIGHT M/TONS IN AIR	VOLUME M ³ @ 20°C	REMARKS
	497.352	656.214	LOCAL
	397.882	524.971	TRANSIT
	1,989.408	2,624.855	TRANSIT
	497.352	656.214	TRANSIT
	397.882	524.971	TRANSIT
	387.935	511.847	TRANSIT
	606.776	800.581	TRANSIT
	2,463.882	3,250.883	TRANSIT
	298.411	393.728	TRANSIT
	696.293	918.699	TRANSIT
	795.763	1,049.942	TRANSIT
	1,110.090	1,464.669	TRANSIT
	109.417	144.367	TRANSIT
	1,989.408	2,624.855	LOCAL
	1,193.645	1,574.913	LOCAL

Receipt of Goods

Storage Receipt

- Confirmation of the goods delivered/discharged.
- Based on the outturn report
- DCL receipts this quantity under CMA.
 - Care
 - Custody
 - Control
- Receipt acknowledged by the Bank.

DRUM commodities	
STORAGE RECEIPT	
NO: FIMBANK-ALEX-016 Date: 16th March 2015	
To the Order Of: FIMBANK	Collateral Management Agreement
For the Account Of: Alex Petroleum Tanzania	
This is to certify that the undersigned have received the Goods for storage in apparent good order and condition (except as noted below), subject to the Collateral Management Agreement dated the 23rd July 2014 between Alex Petroleum Tanzania and Fimbank and Drum Commodities Limited.	
DESCRIPTION OF GOODS	
Vessel Name: MT Outrageous Lion	
B/L: 1000,000 tonnes	
QUANTITY (STC): 989,568 tonnes	REMARKS:
Commodity: Mogas (PMS)	SAMPLE ONLY
DATE RECEIVED: 5-11th March 2015	
LOCATION OF STORAGE: Goat Oil (T) Ltd, Plot no. 546, Kurasini, Dar es Salaam, Tanzania	
INSURANCE: Cargo not insured by DCL. Cargo insured by Alex Petroleum.	
Release or partial release of Goods will only be made upon written instructions from Fimbank, in accordance with the Collateral Management Agreement stated above.	
THIS STORAGE RECEIPT IS NOT A DOCUMENT OF TITLE AND CANNOT BE NEGOTIATED OR TRANSFERRED.	
Name:	Alex Joiner Henry Duckworth
Authorised Signature:	 
Date of Signature:	16th March 2015 16th March 2015

¹ STC – Said to Contain

Step 2



Storage

Storage of Goods

Goods stored in the Tank Farm

- Tank Gauging
- **Care, Custody and Control**
- Segregated Tanks
- Comingled Tanks
- **Product Calculations**
- Different methods of calculation
 - VCF
 - LCF
- Terminal Losses
- Deadstock



Storage of Goods

Tank Gauging

Manual dip gauging (dips).



Automatic Tank Gauging (ATG).



Storage of Goods

Care, Custody and Control

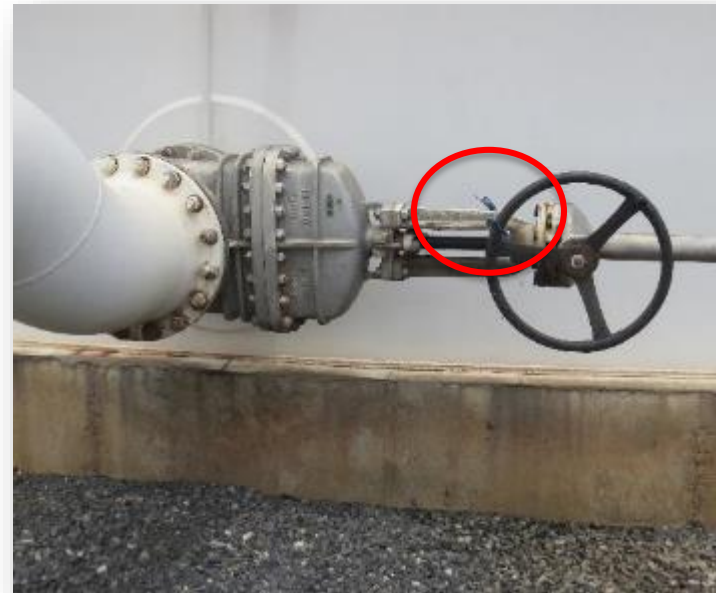
Tank dipped in the morning.

Kept locked/sealed at all times except during loading.

Locks and/or seals removed from tanks.

Loadings monitored at the gantry.

Tank resealed/locked following loading.



Storage of Goods

Care, Custody and Control

Comingling – How we deal with it.

Tank dipped in the morning and evening.

Opening and closing meter readings.

Locks and/or seals removed from tanks.

DCL staff meet daily with storage facility staff – Quantity of product declared and agreed.

ALL loadings from CMA product tanks monitored.

Tank resealed/locked following loading.

Quantity of Product in Tank is always greater than CMA quantity.



Storage of Goods

Product Calculations

Millimetres, Litres, Tonnes and Gallons - Stock Held in tonnes but released in Litres

Quantification of product to be released.

Volume Correction Factor

Based on product density and temperature

Local Correction Factor (LCF)

Based on a country specific standard factor for each product

Storage of Goods

Calculations

Stock Holding Agreement

Terminal Losses:

What are the agreed operational losses included in the Holding Agreement

Varies between storage facilities.



Storage of Goods

Calculations

Deadstock

Quantity of Fuel that can **not** be pumped through the gantry.

Who Does this fuel belong to?

Varies between storage facilities.



Step 3



Release

Release of Goods

Product Release Process

Bank Release Instruction

Bank sends DCL UK Release Instruction for Goods.

DCL UK communicates the release of product to in-country team.

‘Free Load’ product calculated.



Release of Goods

Product Release Process

In-country Action

Step 1: Off-taker's tankers arrive at storage facility.

Undergo security checks prior to entry into the facility.

DCL Signs off Loading Orders, ensuring that there is sufficient 'released' product.

Trucks over this amount will not be authorised to load.



Release of Goods

Product Release Process

In-country Action

Step 2: After clearing security / safety check, tankers are weighed (if there is a weighbridge available).

Preloading weight is documented for each truck.

Trucks are dipped if there is no weighbridge.



Release of Goods

Product Release Process

In-country Action

Step 3: Tankers are escorted to the gantry for loading.

Loading takes place.

Compartments are dipped and flow meter measurements are taken.

Quantities are recorded by DCL.



Release of Goods

Product Release Process

In-country Action

Step 4: Tankers are weighed on departure (where weighbridges are available).

Difference between pre and post filling weights are communicated to DCL.

Goods Dispatch Note copies provided to driver and kept for DCL records.



Release of Goods

Product Release Process

In-country Action

No Weighbridge?

Comparison of Loading Orders to -

Gantry Flow Meters

Truck Compartment Dip

Dip Changes

Loading Orders

Gantry Opening and Closing Figures



Release of Goods

Product Release Process

In-country Action

Dual Site Operations

Tanker compartments are sealed.

If tankers are moving to another DCL managed site, compartments are sealed to avoid theft on route.

Seal numbers are recorded for cross reference at second site.



Release of Goods

Product Release Process

In-country Action

Dual Site Operations

All loading information sent to second site.

Truck/trailer/driver information

Loaded quantities

Seal numbers

Confirmation of loading site information.

Confirmation of arrival amounts of products held by weighbridge or tank dips.

Transit losses calculated.



Reporting on Goods

Daily Reports

Totally Transparent

Report Tabs

- Summary

- Release Instructions

- Dips

- Truck Loadings

Timings reviewed to ensure
no pre-release



Reporting on Goods

Report – All Aspects

VALLIS
COMMODITIES

BANK - TRADER
STOCK REPORT: STORAGE FACILITY NAME
DAY MONTH YEAR

Date Received	Commodity	Original / Copy Bill of Lading	Vessel Name	Storage Receipt Number	Quantity Received (tonnes)	Conversion Factor	Release Instruction (tonnes)	BANK Stock Under CMA (tonnes)	VCL Verified Tank Farm Stock Holding (tonnes)	BANK Stock Under CMA (Litres)	VCL Verified Tank Farm Stock Holding (Litres)
14-Apr-16	PMS	Copy of BOL (1,000.000 tonnes)	MT Idabulumhlambi	BANK-TRADER-001	1,000.789	1,330.311	1,000.789	0.000			
09-Jun-16	PMS	Copy of BOL (12,232.007 tonnes)	MT Fezalina	BANK-TRADER-002	2,345.987	1,321.297	0.000	2,345.987			
								2,345.987	3,807.052	3,120,892	5,064,562
12-May-16	AGO	Copy of BOL (6,412.500 tonnes)	MT Vallis House	BANK-TRADER-003	6,584.215	1,197.413	5,007.221	1,576.994			
								1,576.994	7,183.713	1,888,313	8,601,871

Reporting on Goods

Report – Product Received

Date Received	Commodity	Original / Copy Bill of Lading	Vessel Name	Storage Receipt Number	Quantity Received (tonnes)	Conversion Factor
14-Apr-16	PMS	Copy of BOL (1,000.000 tonnes)	MT Idabulumhlambi	BANK-TRADER-001	1,000.789	1,330.311
09-Jun-16	PMS	Copy of BOL (12,232.007 tonnes)	MT Fezalina	BANK-TRADER-002	2,345.987	1,321.297
12-May-16	AGO	Copy of BOL (6,412.500 tonnes)	MT Vallis House	BANK-TRADER-003	6,584.215	1,197.413

Reporting on Goods

Report – Product Stored

Storage Receipt Number	Quantity Received (tonnes)	Conversion Factor	Release Instruction (tonnes)	BANK Stock Under CMA (tonnes)	VCL Verified Tank Farm Stock Holding (tonnes)
BANK-TRADER-001	1,000.789	1,330.311	1,000.789	0.000	
BANK-TRADER-002	2,345.987	1,321.297	0.000	2,345.987	
				2,345.987	3,807.052
BANK-TRADER-003	6,584.215	1,197.413	5,007.221	1,576.994	
				1,576.994	7,183.713

Reporting on Goods

Report – Product Released

Release Instruction (tonnes)	BANK Stock Under CMA (tonnes)	VCL Verified Tank Farm Stock Holding (tonnes)	BANK Stock Under CMA (Litres)	VCL Verified Tank Farm Stock Holding (Litres)
1,000.789	0.000			
0.000	2,345.987			
	2,345.987	3,807.052	3,120,892	5,064,562
5,007.221	1,576.994			
	1,576.994	7,183.713	1,888,313	8,601,871

Reporting on Goods

Report – Release Instructions



Storage Receipt Number	Release Instruction Number	Date	Product	Quantity (tonnes)	Remarks
BANK-TRADER-001	1	13-May-16	PMS	1,000.268	
				1,000.268	
BANK-TRADER-002	1	19-May-16	AGO	1,298.000	
BANK-TRADER-003	2	25-May-16	AGO	3,209.221	
BANK-TRADER-004	2	10-Jun-16	AGO	500.000	
				5,007.221	
BANK-TRADER-003			PMS		
				-	

Reporting on Goods

Report – Tank Quantity



Dip Checks - PMS (MOGAS)

Date	Time	Product Description	Tank 5 (tonnes)	Tank 6 (tonnes)	Tank Farm Stock Holding (tonnes)	Daily Tank Farm Release by Dips (tonnes)	Comment
23-May-16	AM	PMS (MOGAS)	2,583.596	1,689.280	4,272.876	#REF!	Received Non CMA stock
24-May-16	AM	PMS (MOGAS)	2,218.808	1,666.905	3,885.713	-387.16	
25-May-16	AM	PMS (MOGAS)	1,973.086	1,667.191	3,640.277	-245.44	
26-May-16	AM	PMS (MOGAS)	1,494.899	1,665.849	3,160.748	-479.53	
27-May-16	AM	PMS (MOGAS)	1,493.190	1,665.638	3,158.828	-1.92	
28-May-16	AM	PMS (MOGAS)	1,492.317	1,511.472	3,003.789	-155.04	
29-May-16	AM	PMS (MOGAS)	1,490.988	900.722	2,391.710	-612.08	
30-May-16	AM	PMS (MOGAS)	1,490.988	900.722	2,391.710	0.00	
31-May-16	AM	PMS (MOGAS)	1,490.912	639.038	2,129.950	-261.76	
01-Jun-16	AM	PMS (MOGAS)	1,388.414	329.390	1,717.804	-412.15	Difference due to monthly density check/change
02-Jun-16	AM	PMS (MOGAS)	1,040.606	1,684.992	2,725.598	1007.79	
03-Jun-16	AM	PMS (MOGAS)	1,040.227	980.355	2,020.582	-705.02	
04-Jun-16	AM	PMS (MOGAS)	2,604.869	3,324.149	5,929.018	3908.44	
06-Jun-16	AM	PMS (MOGAS)	2,603.729	3,232.465	5,836.194	-92.82	
07-Jun-16	AM	PMS (MOGAS)	2,602.800	2,991.517	5,594.317	-241.88	
08-Jun-16	AM	PMS (MOGAS)	2,601.649	2,545.837	5,147.486	-446.83	
09-Jun-16	AM	PMS (MOGAS)	2,601.968	1,926.405	4,528.373	-619.11	
10-Jun-16	AM	PMS (MOGAS)	3,577.616	3,358.718	6,936.334	2407.96	
11-Jun-16	AM	PMS (MOGAS)	2,409.586	3,358.718	5,768.304	-1168.03	
13-Jun-16	AM	PMS (MOGAS)	1,564.496	3,356.627	4,921.123	-847.18	
14-Jun-16	AM	PMS (MOGAS)	1,325.782	3,355.286	4,681.068	-240.05	
15-Jun-16	AM	PMS (MOGAS)	1,335.532	2,182.184	3,517.716	-1163.35	
16-Jun-16	AM	PMS (MOGAS)	1,360.156	2,446.896	3,807.052	289.34	
					3,807.052		

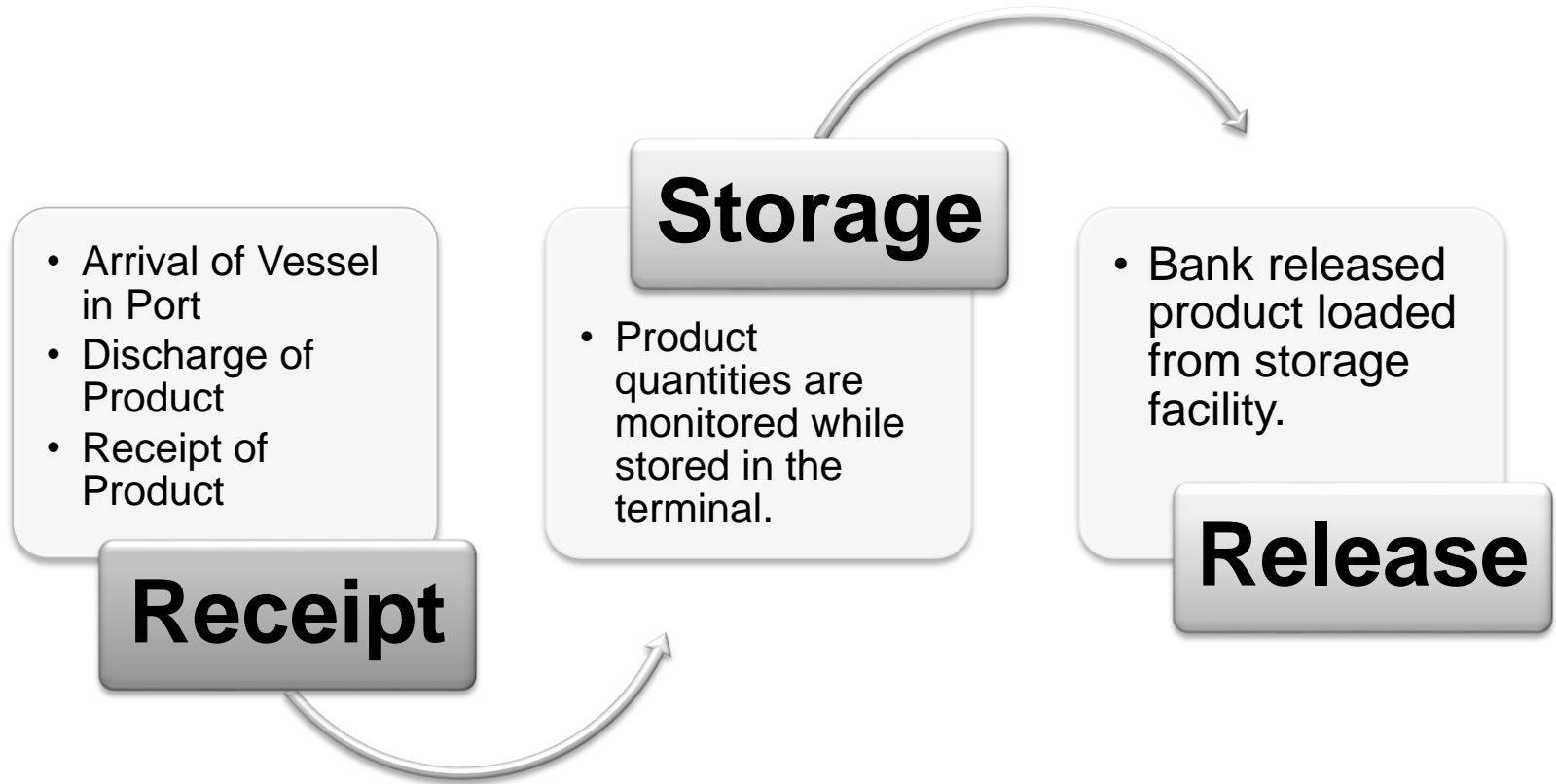
Reporting on Goods

Report – Loading to Trucks



PMS (MOGAS) Release Instruction	Date	Time	Despatch Number	Truck Registration	Quantity Endorsed for Loading	Quantity Loaded (Liters)	Quantity Loaded (tonnes)	Comments
BANK-TRADER								
Tank 5	20-Apr-16	09:34:00		T297DFX/T484DAJ	40000	40000		
		10:23:00		T285DFX/T285DFJ	40000	40000		
		15:57:00	411701	T904BFR/T346AQE	14000	14000		
		16:44:00	411714	T582BVD/T681BVC	40000	40000		
		09:40:00		T292DFX/T280DFJ	40000	40000		
		10:20:00		T284DFX/T284DFJ	40000	40000		
		11:15:00		T293DFX/TT514DFX	40000	40000		
		15:50:00	411713	T188BYE/T459BYD	40000	40000		
					294000	294000	214.273	

Summary



Drum Commodities Limited

Integrated Supply Chain and Commodity Management

Please contact Alex Joiner with any questions or queries at:

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