

Drum Commodities Limited

Integrated Supply Chain and Commodity Management

A Show Reel of the Collateral Management of
Petroleum Products



November 2015
Andrew Barr-Sim

Contents

Current Operations (Bulk Liquids)

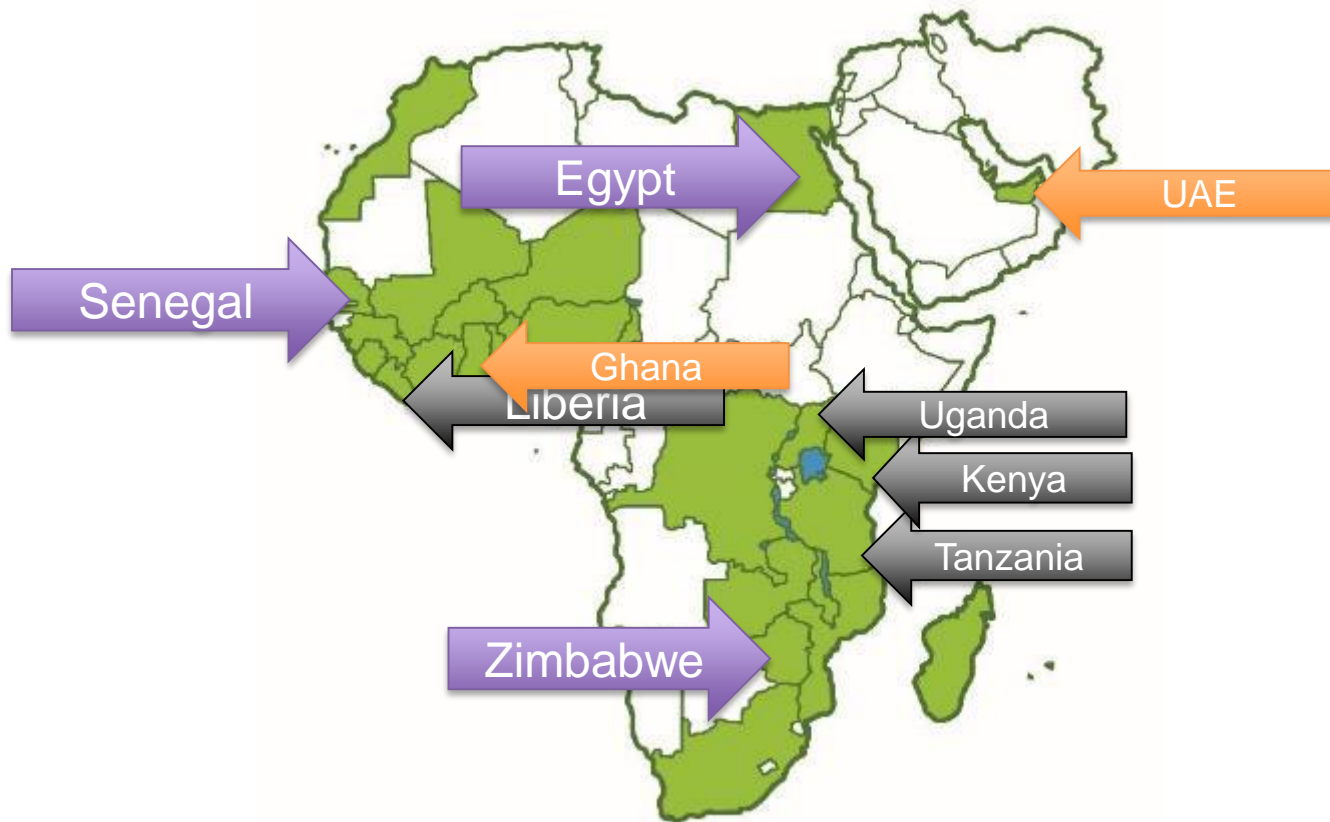
Receipt of Goods

Storage of Goods

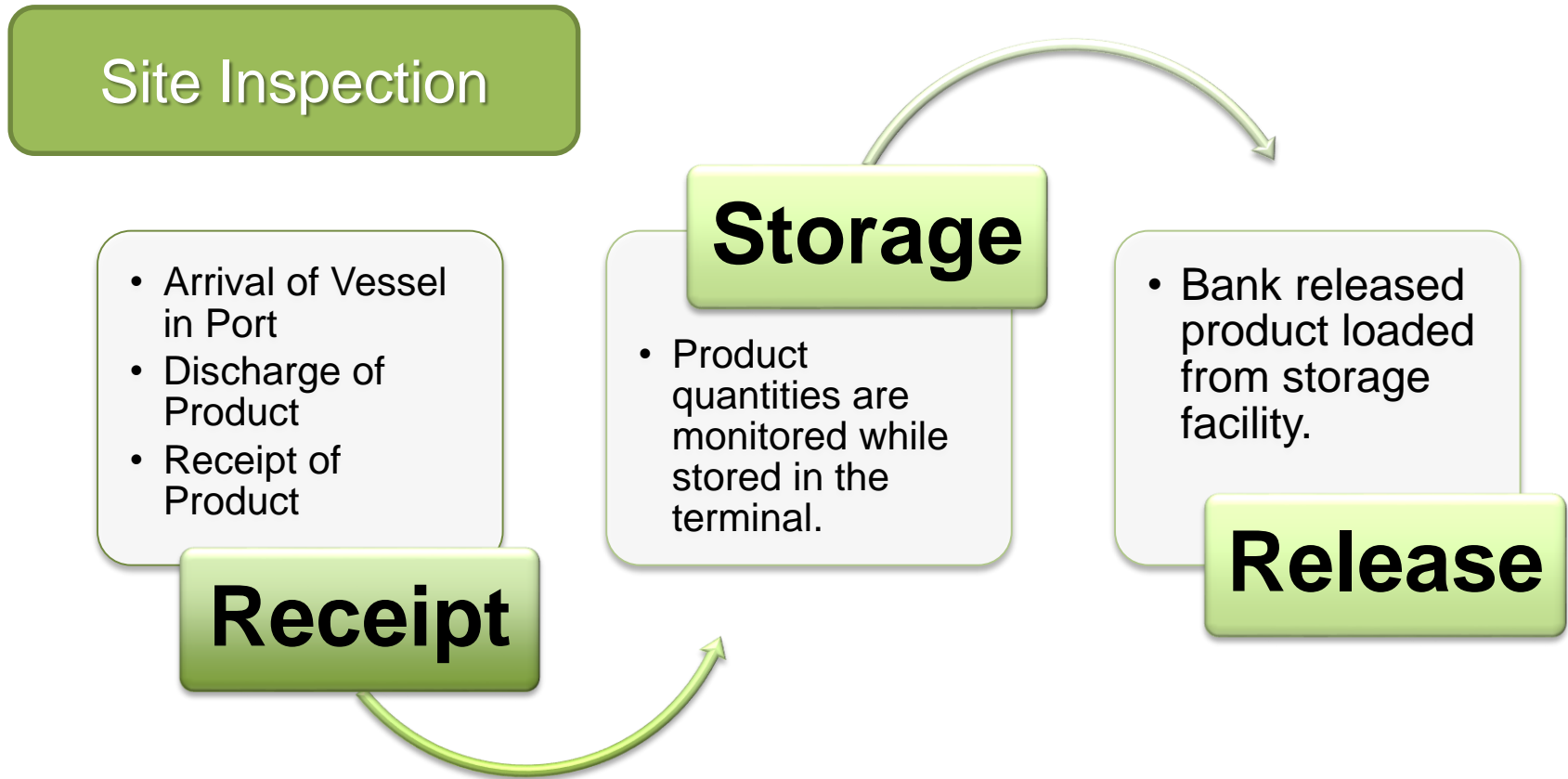
Release of Goods



Locations



Process Flow



Step 1



Receipt

Receipt of Goods

Receipt

Prior to Vessel Arrival

- Prior to bank issuing LC, DCL enquires on ullage and tanks.
- Trader informs DCL staff that they have product on an impending vessel.
- Trader provides DCL with the following information
 - Bill of Lading (Copy).
 - Cargo Manifest.
 - Certificate of Quality.
 - Certificate of Origin.
 - Receipt of Samples.
 - Vessel Survey Report.



DATE	SHIP NAME	ETA	ETD	DISCHARGE	BUNKERS	LOCATION
2014/01/01	MSC MARIAN	14:00	14:00	1000 TON	FOR DISCHARGE	S. 1017



Receipt of Goods

Receipt

Prior to Vessel Arrival

- Prior to bank issuing LC, DCL enquires on ullage and tanks.
- Trader informs DCL staff that they have product on an impending vessel.
- Trader provides DCL with the following information
 - **Bill of Lading.**
 - Cargo Manifest.
 - Certificate of Quantity.
 - Certificate of Origin.
 - Receipt of Samples.
 - Vessel Survey Report.



DATE	VESSEL NAME	W/A	ETD	DISCHARGE	BUNKERS	LOCATION
05/05/2017	ALABAMA	M/S	04	1000 TONNES	FOR 2000 TONNES	S. KOT



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 تونال للتكرير والمزج والمنتجات البترولية (ساتورب)
SAUDI ARAMCO TOTAL Refining and Petrochemical Company (SATORP)

Page No 1
BILL OF LADING B/L No: 150216_09110.P1
TO BE USED WITH CHARTER-PARTIES Reference No. TO-0MA0218DSLO02

Shipped by: 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 LTD
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

Shipper's Description of Goods: GASCIL
GASCIL

Gross Quantity:
82,204.887 MT @ 15° C
87,845.813 Metric Tonnes (MT) (A)
817,311 US Barrels @ 60° F

COPY
NON NEGOTIABLE
DELIVER TO THE ORDER OF:
Zena Petroleum Ltd
ADDU ENERGY SA
Jan 25 2015
Hassit

Freight payable as per charter party
Clean on board
(of which N/L 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:	IN WITNESS whereof the Master or Agent of the said Vessel has signed the number of Bills of Lading indicated below together with the date, any one of which being accompanied by the other(s) as per note.
Time used for loading: _____ days _____ hours	FOR CONDITIONS OF CARRIAGE SEE THE MASTER COPY
Freight payable at:	Place and date of issue
Number of original B/L: _____	Al-Jubail Saudi Arabia 18 February 2015
	For or on behalf of the Master: CAPT. RAHUL K. SHARMA

MASTER SIGNATURE

Receipt of Goods

Receipt

Vessel Arrives in Port

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

Vessel

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

Shore Tanks

- 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 3/4 Tank 402: 6' 5 3/4 Water receipt (Tx9) tank: 2' 2 3/4	A n Other & Other
	Crude Soya bean oil - Tank 2: 2' 2 3/4 Tank 402: 5' 7 3/4	A n Other & Other

Receipt of Goods

Receipt

Outturn Report

- 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

Receipt of Goods

RECAP



VESSEL ARRIVAL

Surveyors & Marine Services Ltd
Surveying and Inspection

TABLE 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
	606.770	800.581	TRANSIT
	2,463.882	3,250.883	TRANSIT
	298.411	393.728	TRANSIT

OUTTURN REPORT

DRUM
commodities

STORAGE RECEIPT Date: 16th March 2015

NO: FIMBANK-ALEX-016

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
BL: 1000.000 tonnes

QUANTITY (STG): 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.

STORAGE RECEIPT

Step 2

Storage

Storage of Goods

Goods stored in the Tank Farm

Managing of Product

- 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).

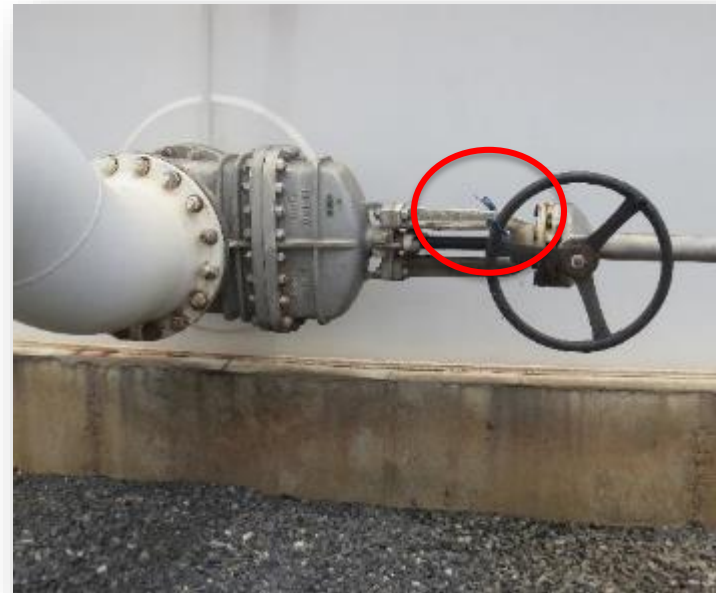


Storage of Goods

Care, Custody and Control

Segregated Tanks

- 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 standard factor for each product
 - Litres: 1360 (PMS), 1200 (AGO), 1272 (IK)
 - Gallons: 306 (AGO) 350 (PMS)

$$\text{TONNES X LCF} = \text{LITRES}$$

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



BANK / TRADER
STOCK REPORT: ALEX OIL
DATE: 8 APRIL 2015

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)	DCL Verified Tank Farm Stock Holding (tonnes)	Stock Collected by DELTA (tonnes)	Stock Awaiting Collection by ALEX (tonnes)	Total Stock Awaiting Collection by ALEX (tonnes)	Stock Awaiting Collection by ALEX (Liters)	Total Stock Awaiting Collection by ALEX (Liters)
05-11 March 2015	PMS	Copy BOL (1000.000)	MT Panting Lion	BANK-001	994.704	1,312.818	994.704	0.000		301.641	693.063		909,865	
								0.000	2,351.286			693.063		909,865
20-27 February 2015	AGO	Copy BOL (792.000)	MT UACC Wild Cat	BANK-002	785.985	1,215.507	785.985	0.000		729.325	56.660		68,870	
03-07 March 2015	AGO	Copy BOL (950.000)	MT Monkey Man	BANK-003	948.453	1,214.879	794.868	153.585		326.370	468.498		569,168	
19-30 March 2015	AGO	Copy BOL (600.000)	MT Fennel Soup	BANK-004	598.088	1,212.857	0.000	598.088		0.000	0.000		0	
								751.673	11,523.512			525.158		638,039

Reporting on Goods

Report – Product Received

Date Received	Commodity	Original / Copy Bill of Lading	Vessel Name	Storage Receipt Number	Quantity Received (tonnes)	Conversion Factor
05-11 March 2015	PMS	Copy BOL (1000.000)	MT Panting Lion	BANK-001	994.704	1,312.818
20-27 February 2015	AGO	Copy BOL (792.000)	MT UACC Wild Cat	BANK-002	785.985	1,215.507
03-07 March 2015	AGO	Copy BOL (950.000)	MT Monkey Man	BANK-003	948.453	1,214.879
19-30 March 2015	AGO	Copy BOL (600.000)	MT Fennel Soup	BANK-004	598.088	1,212.857

Reporting on Goods

Report – Product Stored

Reporting on Goods

Report – Product Released

Stock Collected by ALEX (tonnes)	Stock Awaiting Collection by ALEX (tonnes)	Total Stock Awaiting Collection by ALEX (tonnes)	Stock Awaiting Collection by ALEX (Liters)	Total Stock Awaiting Collection by ALEX (Liters)
301.641	693.063		909,865	
		693.063		909,865
729.325	56.660		68,870	
326.370	468.498		569,168	
0.000	0.000		0	
		525.158		638,039

Reporting on Goods

Report – Release Instructions

Storage Receipt Number	Release Instruction Number	Date	Vessel Name	Product	Quantity (tonnes)	Remarks
BANK 1	1	23-Mar-15	MT Front Lion	AGO	395.291	
BANK 1	2	27-Mar-15	MT Front Lion	AGO	390.694	
					785.985	
BANK 2	1	26-Mar-15	MT Gulf Crystal	AGO	246.656	
	2	26-Mar-15	MT Gulf Crystal	AGO	131.809	
	3	02-Apr-15	MT Gulf Crystal	AGO	416.403	
					794.868	
BANK 3	1	19-Mar-15	MT Pacific Jewel	PMS	219.557	
	2	20-Mar-15	MT Pacific Jewel	PMS	489.565	
	3	02-Apr-15	MT Pacific Jewel	PMS	285.582	
					994.704	
BANK 4			MT Al Buraq	AGO	0	
					0	

Reporting on Goods

Report – Tank Quantity

Dip Checks - PMS (MOGAS)

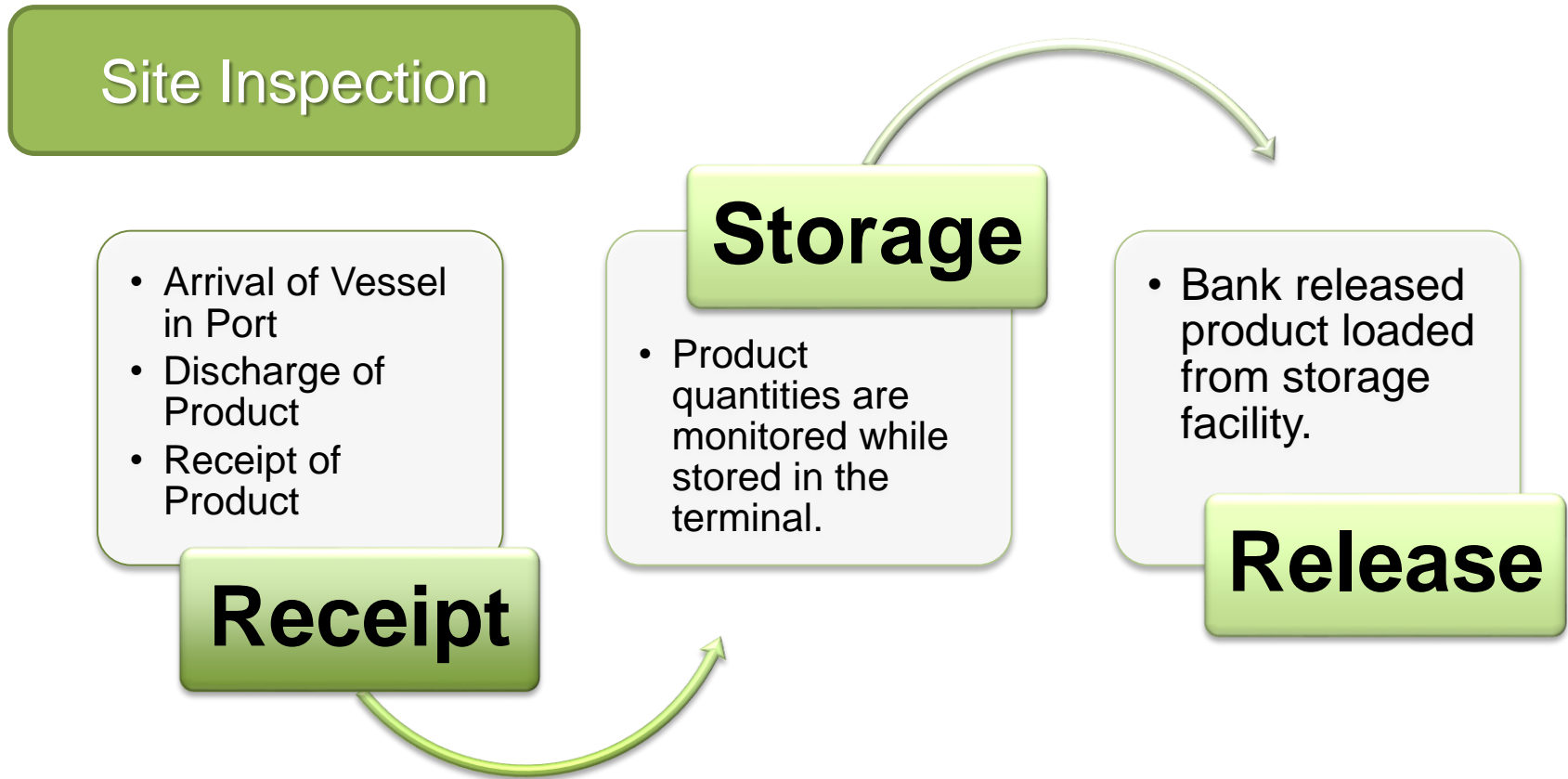
Date	Time	Product Description	Tank 5 (tonnes)	Tank 6 (tonnes)	Tank Farm Stock Holding (tonnes)	Daily Tank Farm Release by Dips (tonnes)	Comment
09-Mar-15	6:30AM	PMS (MOGAS)	3,356.116	970.754	4,326.870		
10-Mar-15	6:30AM	PMS (MOGAS)	3,355.652	721.532	4,077.184	250	
11-Mar-15	6:30AM	PMS (MOGAS)	2,925.374	721.532	3,646.906	430	
12-Mar-15	6:30AM	PMS (MOGAS)	2,688.444	721.532	3,409.976	237	
13-Mar-15	6:30AM	PMS (MOGAS)	2,275.549	3,079.375	5,354.924	-1,945	
14-Mar-15	6:30AM	PMS (MOGAS)	1,745.628	3,079.141	4,824.769	530	
16-Mar-15	6:30AM	PMS (MOGAS)	1,484.848	3,079.375	4,564.223	261	
17-Mar-15	6:30AM	PMS (MOGAS)	1,163.173	3,079.141	4,242.314	322	
18-Mar-15	6:30AM	PMS (MOGAS)	1,016.834	3,078.907	4,095.741	147	
19-Mar-15	6:30AM	PMS (MOGAS)	878.978	3,077.267	3,956.245	139	
20-Mar-15	6:30AM	PMS (MOGAS)	614.345	3,086.928	3,701.273	255	
21-Mar-15	6:30AM	PMS (MOGAS)	613.059	2,454.443	3,067.502	634	
23-Mar-15	6:30AM	PMS (MOGAS)	611.012	1,988.927	2,599.939	468	
24-Mar-15	6:30AM	PMS (MOGAS)	609.075	1,781.191	2,390.266	210	
25-Mar-15	6:30AM	PMS (MOGAS)	610.880	1,541.279	2,152.159	238	
26-Mar-15	6:30AM	PMS (MOGAS)	609.728	1,539.539	2,149.267	3	
27-Mar-15	6:30AM	PMS (MOGAS)	611.568	1,308.810	1,920.378	229	
28-Mar-15	6:30AM	PMS (MOGAS)	611.568	1,169.019	1,780.587	140	
30-Mar-15	6:30AM	PMS (MOGAS)	611.568	1,022.380	1,633.948	147	
31-Mar-15	6:30AM	PMS (MOGAS)	2,698.577	732.311	3,430.888	-1,797	
01-Apr-15	6:30AM	PMS (MOGAS)	2,698.813	619.364	3,318.177	113	
02-Apr-15	6:30AM	PMS (MOGAS)	2,502.156	619.132	3,121.288	197	
04-Apr-15	6:30AM	PMS (MOGAS)	2,109.003	624.661	2,733.664	388	
08-Apr-15	6:30AM	PMS (MOGAS)	1,733.426	617.860	2,351.286	382	
					2,351.286		

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 (liters @ 20)	Volume Correction Factor	Density	Weight Correction Factor	Quantity Loaded (tonnes)	Comments
BANK-001												
	20-Mar-15	15:33	73473	T 785 BKH	40000	40000	39620	0.9905	0.7557	0.7546		
	20-Mar-15	15:54	73474	T 385 BZJ	40000	40000	39620	0.9905	0.7557	0.7546		
	20-Mar-15	16:28	73477	H 7381 A	40000	40000	39620	0.9905	0.7557	0.7546		
	20-Mar-15	16:41	73478	D 3791 A	40000	40000	39620	0.9905	0.7557	0.7546		
	20-Mar-15	17:05	73479	KBS 680 A	39000	39000	38630	0.9905	0.7557	0.7546		
	20-Mar-15	17:23	73480	D 3372 A	40000	40000	39620	0.9905	0.7557	0.7546		
	20-Mar-15	18:08	73481	I 2239 A	40000	40000	39620	0.9905	0.7557	0.7546		
					279000	279000	276350	0.9905	0.7557	0.7546	212.520	
	23-Mar-15	15:34	73624	I 1243 A	38000	38000	37673	0.9914	0.7398	0.7387		
	23-Mar-15	16:03	73623	I 1635 A	40000	40000	39656	0.9914	0.7398	0.7387		
	23-Mar-15	16:46	73627	B 6945 A	39000	39000	38665	0.9914	0.7398	0.7387		
					117000	117000	115994	0.9914	0.7398	0.7387	89.121	
BANK-001											301.641	
Total Released to Date												

Summary



Drum Commodities Limited

Integrated Supply Chain and Commodity Management

THANK YOU
Questions and Answers



November 2015
Andrew Barr-Sim