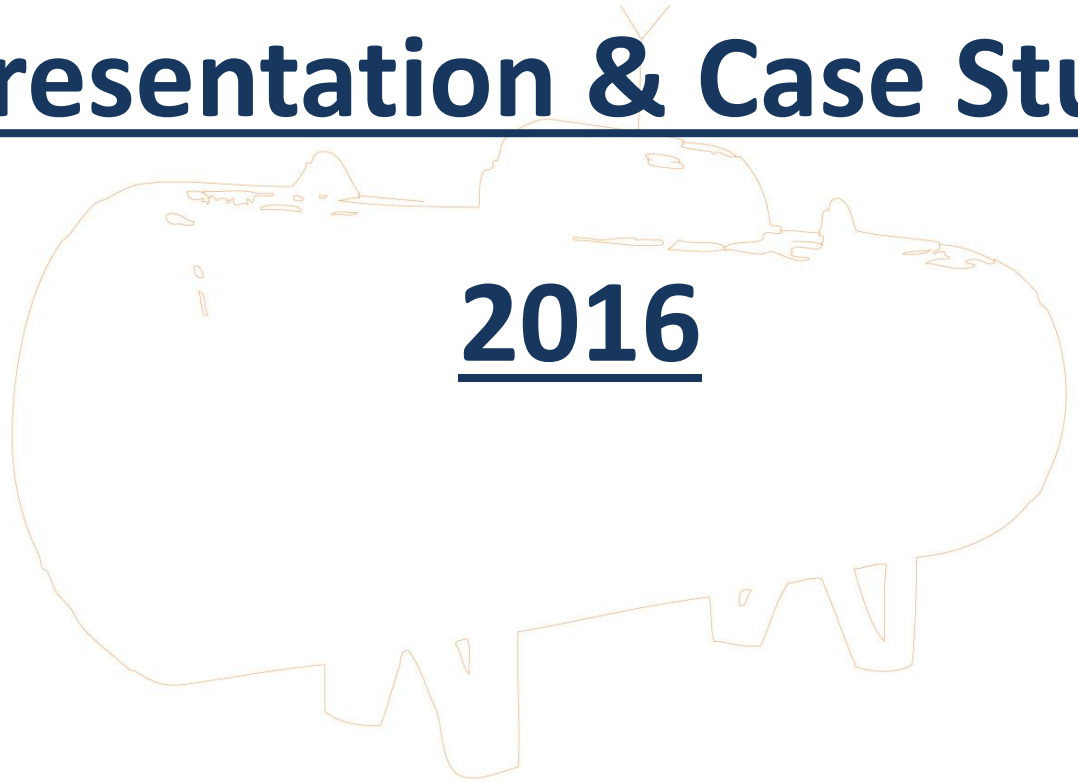
WACnGO Telemetry system

Presentation & Case Study

2016



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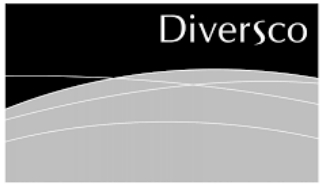
WACnGO companies portfolio



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WAC Advantages

System Targets and added values:

- Logistic optimization:
  - Drop size increase up to 35%
  - Reduce no. of trucks & deliveries
- Eliminate "Out of gas" events
- Improve company Image
- Green and sustainable solution
- Prevent & detect fraud

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Jupiter System – End-to-End Architecture

Management DSS

Dispatcher DSS

Customer inventory management

Enterprise server:
Inventory management
Fraud detection
Dispatcher tools
Efficiency analysis

ERP

Data Collection:
Events
Consumption

Filling process

Data
+GPS
+RFID

Routing Optimization

Elec. Register

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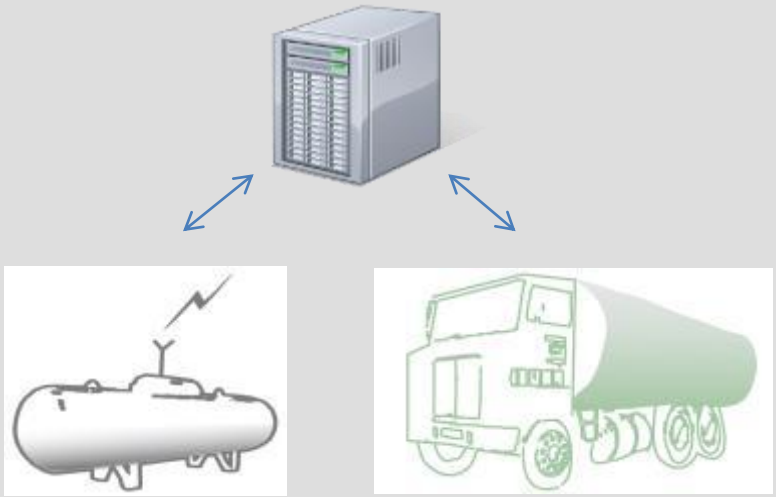
Jupiter Solution

Main Equipment

JupiterProb Unit +
Meter reading capability

Jupiter Enterprise Server



RFID technology:
Smart ring + Smart WGT

Jupiter Mobile
MDT
(Cabin computer)

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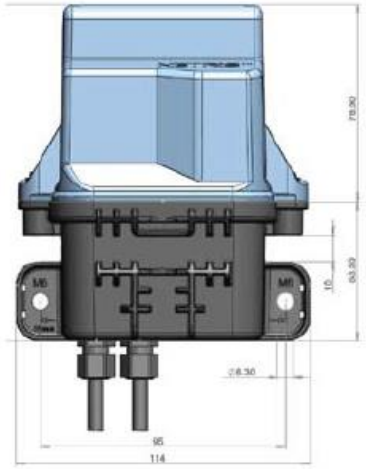
WAC Telemetry advantages

Jupiter Telemetry unit:

- Reliability – More than 15,000 worldwide installations over 12 countries
- Quality & Durability – Robust, Small, Durable, LPG oriented telemetry unit
- One unit Monitor Up to 3 tanks and 1 meter.
- Cellular GSM text based with two way communications (Remote configuration)
- Battery Operated – up to 10 years (1 message a week)
- Online generated alerts
- Few minutes only to install.



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Jupiter Solution

Jupiter III – Telemetry unit installation

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WAC System advantages

Jupiter System:

- TTF – Time To Fill – Advanced algorithm to calculate days to threshold point
- User friendly web interface also supporting smartphones
- Unit Configuration by the company.
- Interface to any Back Office System (ERP)
- Map view – Colors per level or TTF.
- Reports generation to excel.
- Various online Email real-time alerts.
- Groups & Authorization levels per user
- Customer web interface – manage his sites only
- Link to demo:

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ROI – less then 2 years return on investment

ROI - parameters:

- **At least 35% saving on logistical costs – Drop Size increase by 30% to 40%.**
- Stock savings
- Emergency trip savings
- Detecting fraud savings
- Third party filling savings
- Manpower Savings
- Benefit from smart purchasing
- Selling monthly service to end customer

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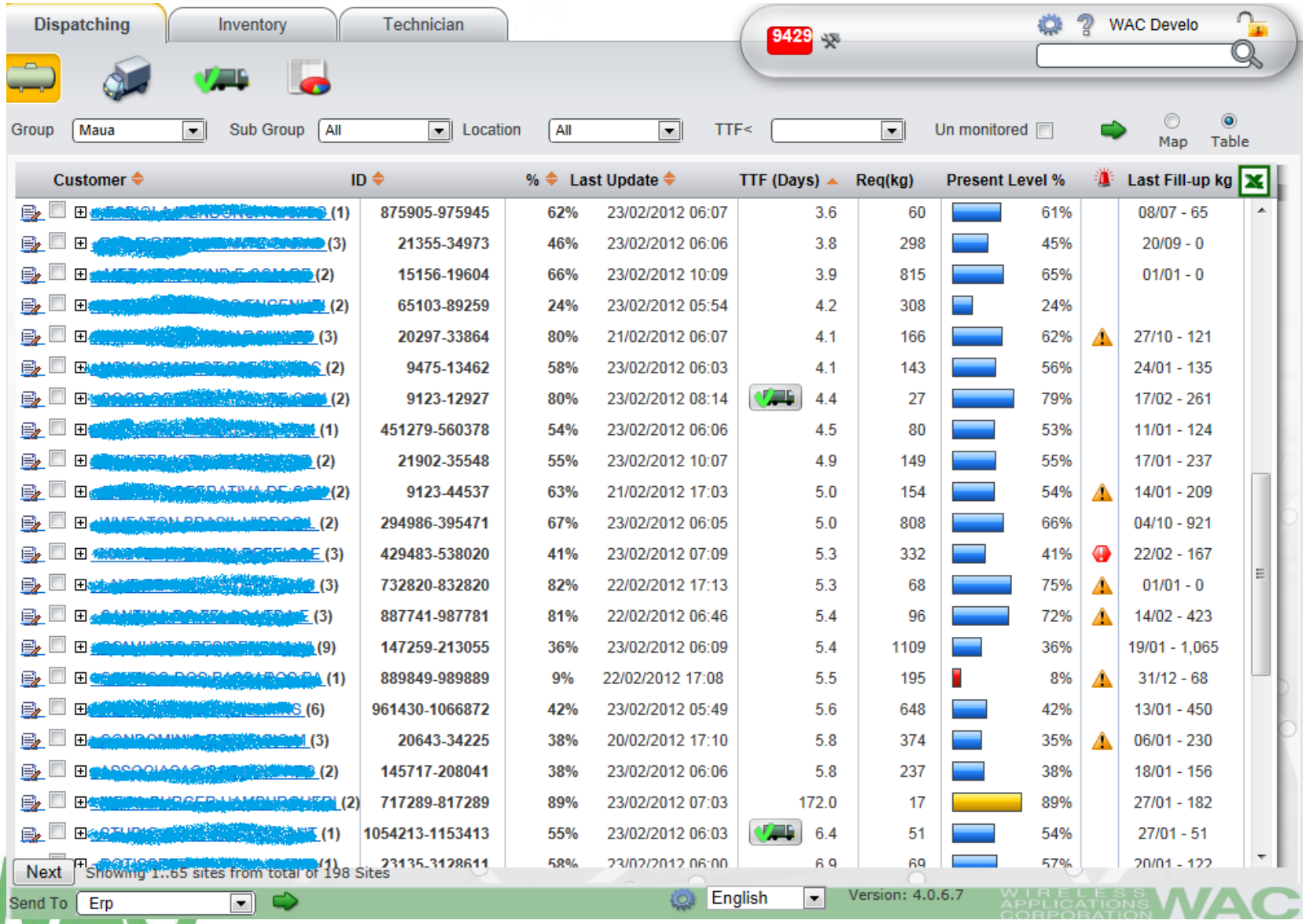
System screens: Main Bulks Monitoring Screen

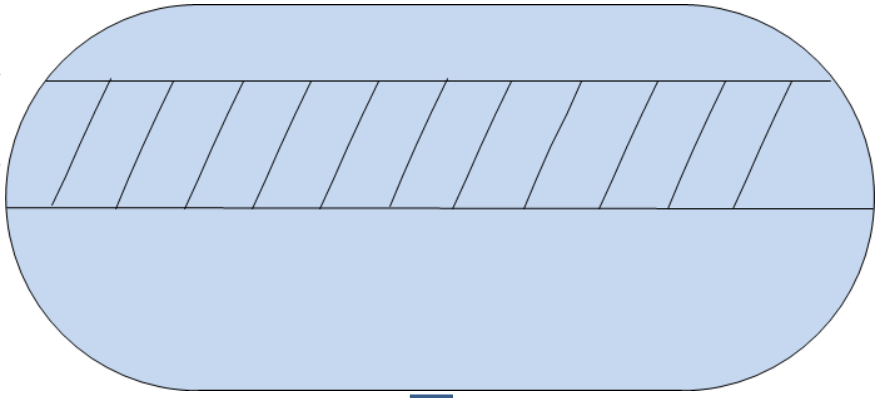


System screens: Management Tools- Dashboard

Increasing Logistic Efficiency

Current situation

Before WACnGO System:
In Average: 30% tank fill-up
(Drop size) per delivery

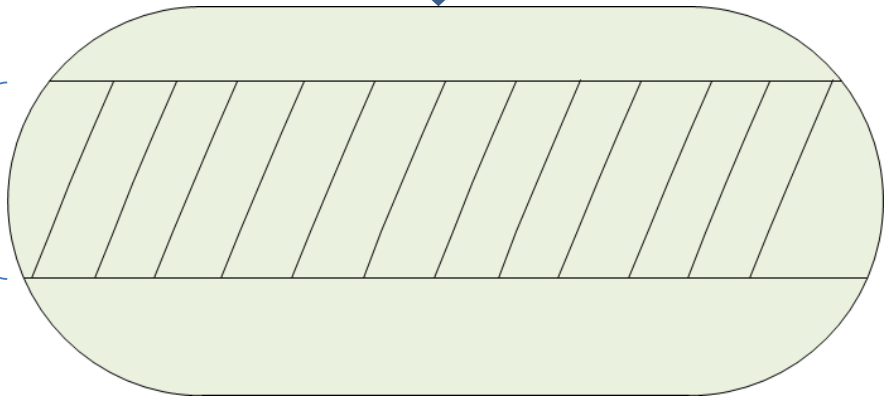


85% Max. Fill-up level

55% Current Average fill-up level

Using WACnGO system

Using WACnGO System:
In Average: 55% tank fill-up
(Drop Size) per delivery



85% Max. Fill-up level

30% Using WACnGO system

From 30% Fill-up/Delivery ➡ 55% Fill-up/Delivery = 83% Increasing Logistic Efficiency

Even with 50% "Practical factor" we reach 40% Increasing in the Logistic efficiency

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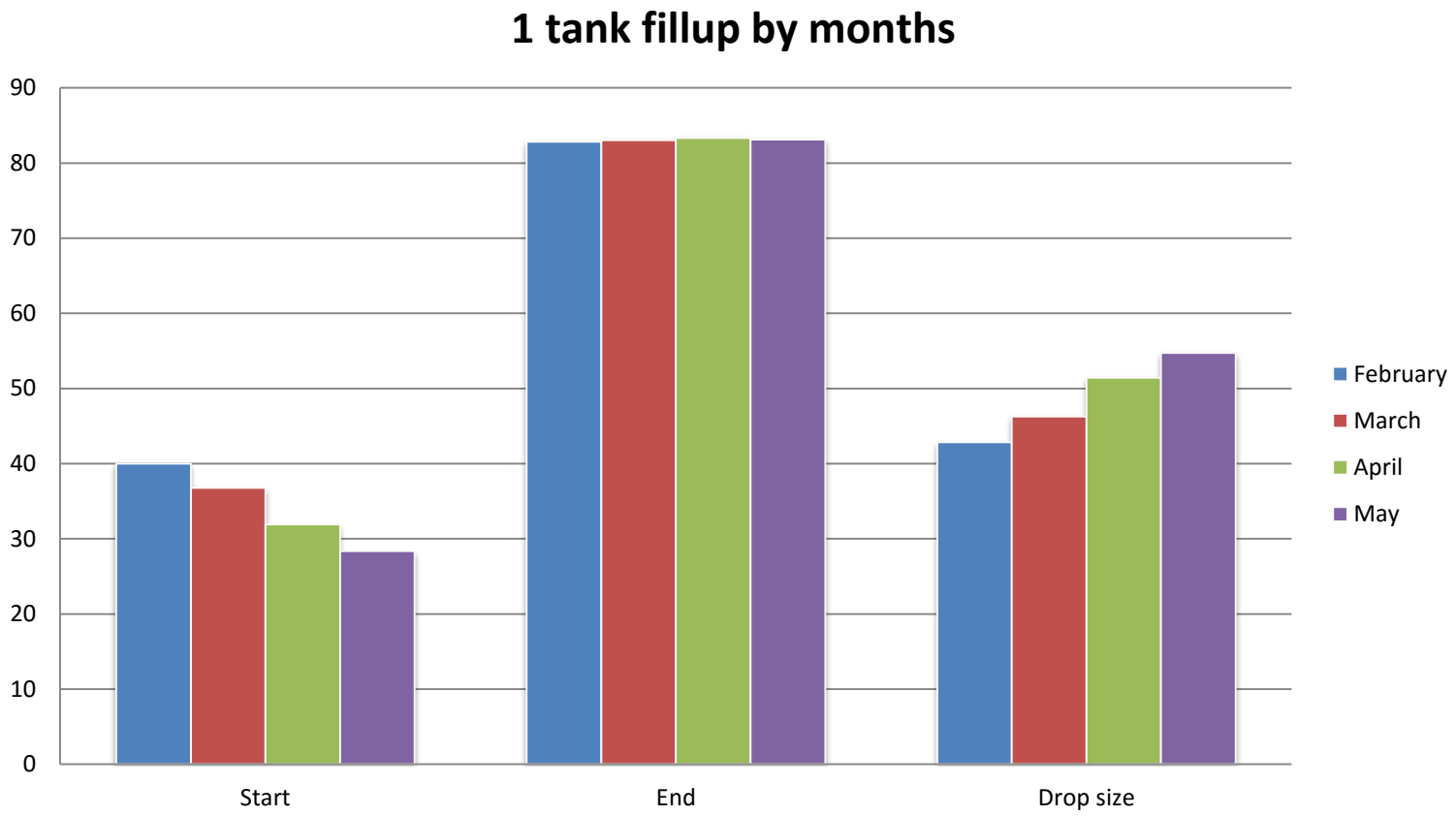
Case study Scope and targets

- ✓ Installation of 200 JupiterProb units pilot
- ✓ Implementation of Jupiter System and migration to standard work scheme
- ✓ Starting to work with Telemetry after 2 months – learning the system behavior
- ✓ Case studies of JupiterProb units results

Case Study of Jupiter system –pilot 2014



Average by Month			
Month	Start	End	Drop size
February	40	82.8	42.8
March	36.8	83.0	46.3
April	31.9	83.3	51.4
May	28.4	83.1	54.7

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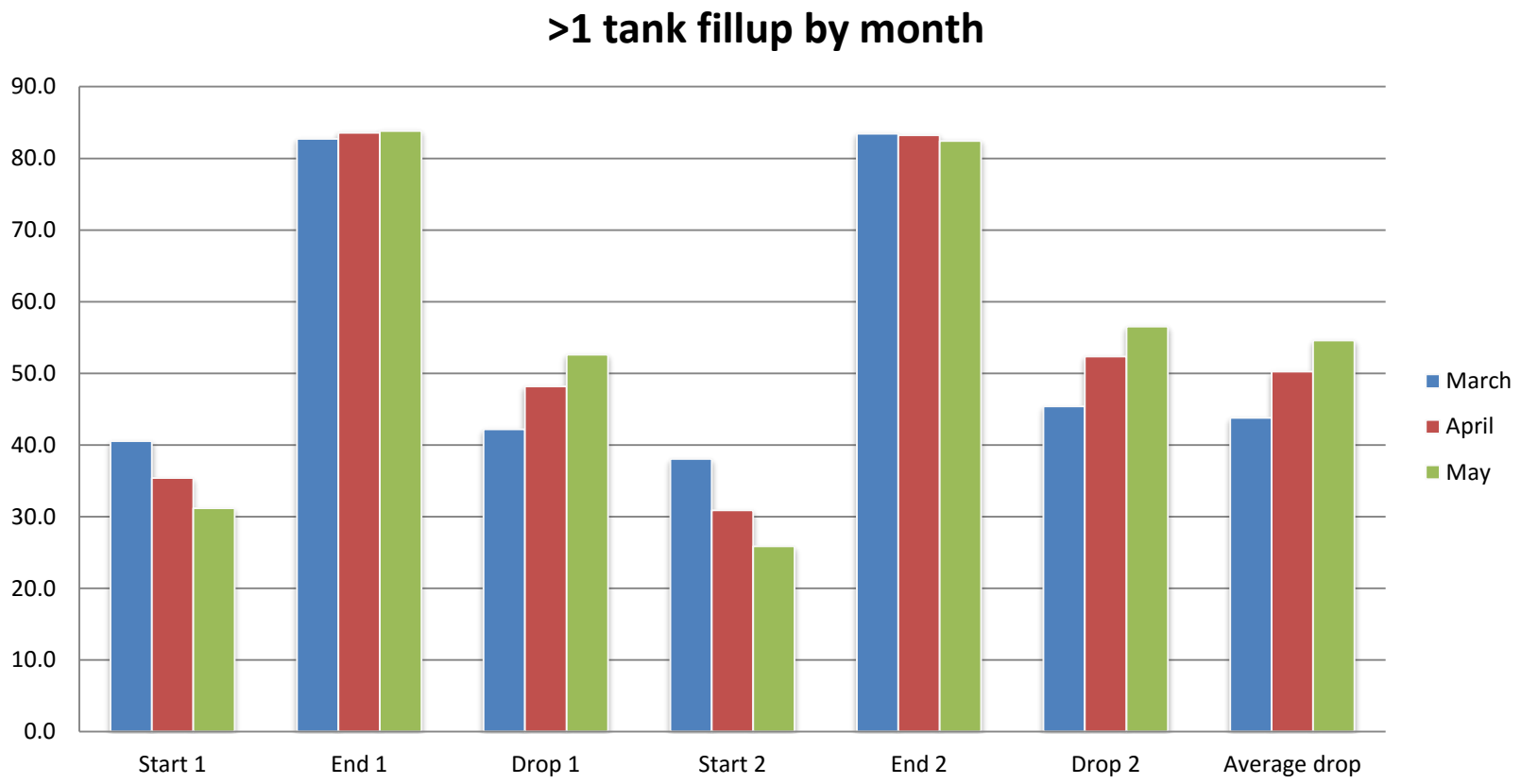
Case Study of fill-ups



Month	Start 1	End 1	Drop 1	Start 2	End 2	Drop 2	Average drop
March	40.5	82.7	42.2	38.1	83.4	45.4	43.8
April	35.4	83.6	48.2	30.9	83.2	52.3	50.2
May	31.2	83.8	52.6	25.9	82.4	56.5	54.6

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Summary of fill up

After 4 months of testing WAC system:

- **Drop Size: increase of 27.8%**
- **Sites with stuck sensors detected and fixed**
- **Improvement of logistic optimization routing due to system**

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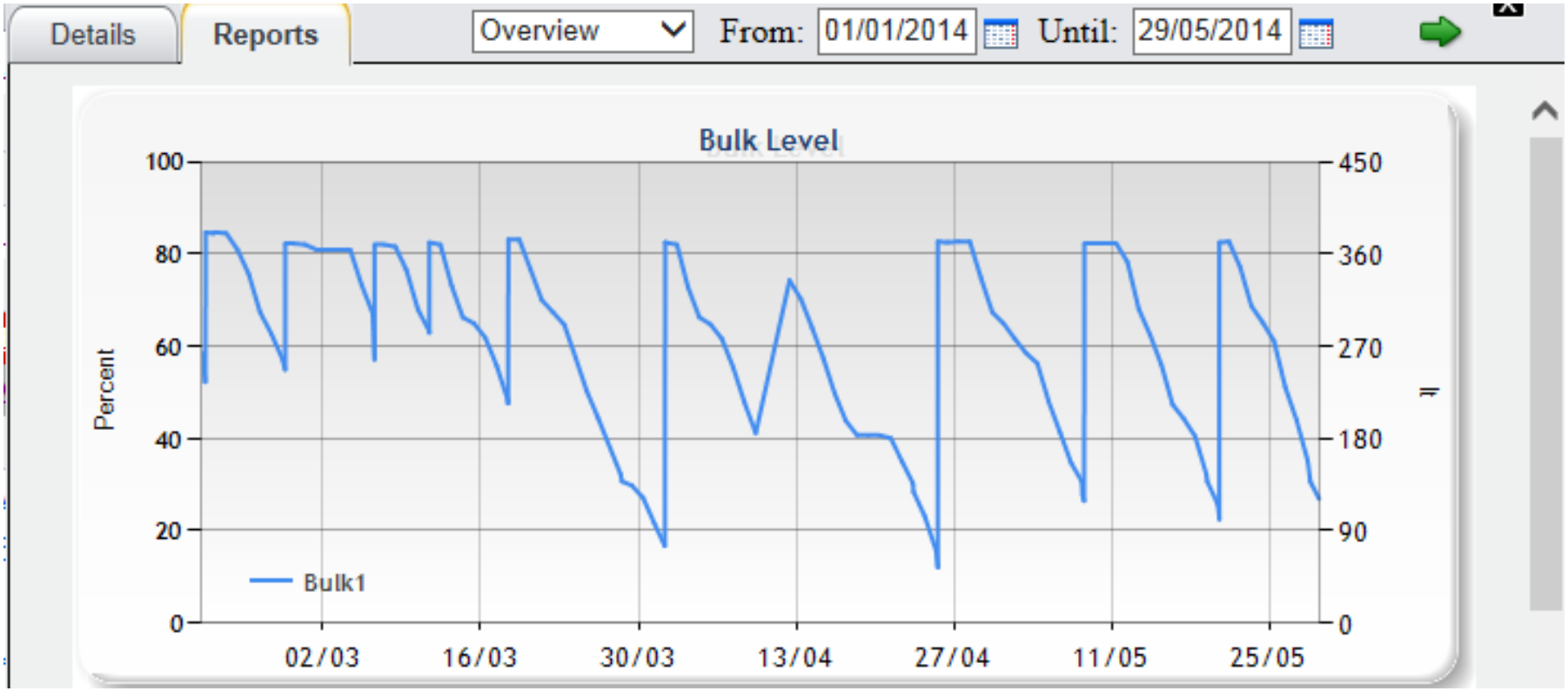
examples Improvements

Low drop size prior to using WAC system compared to larger drop sizes working with WAC system



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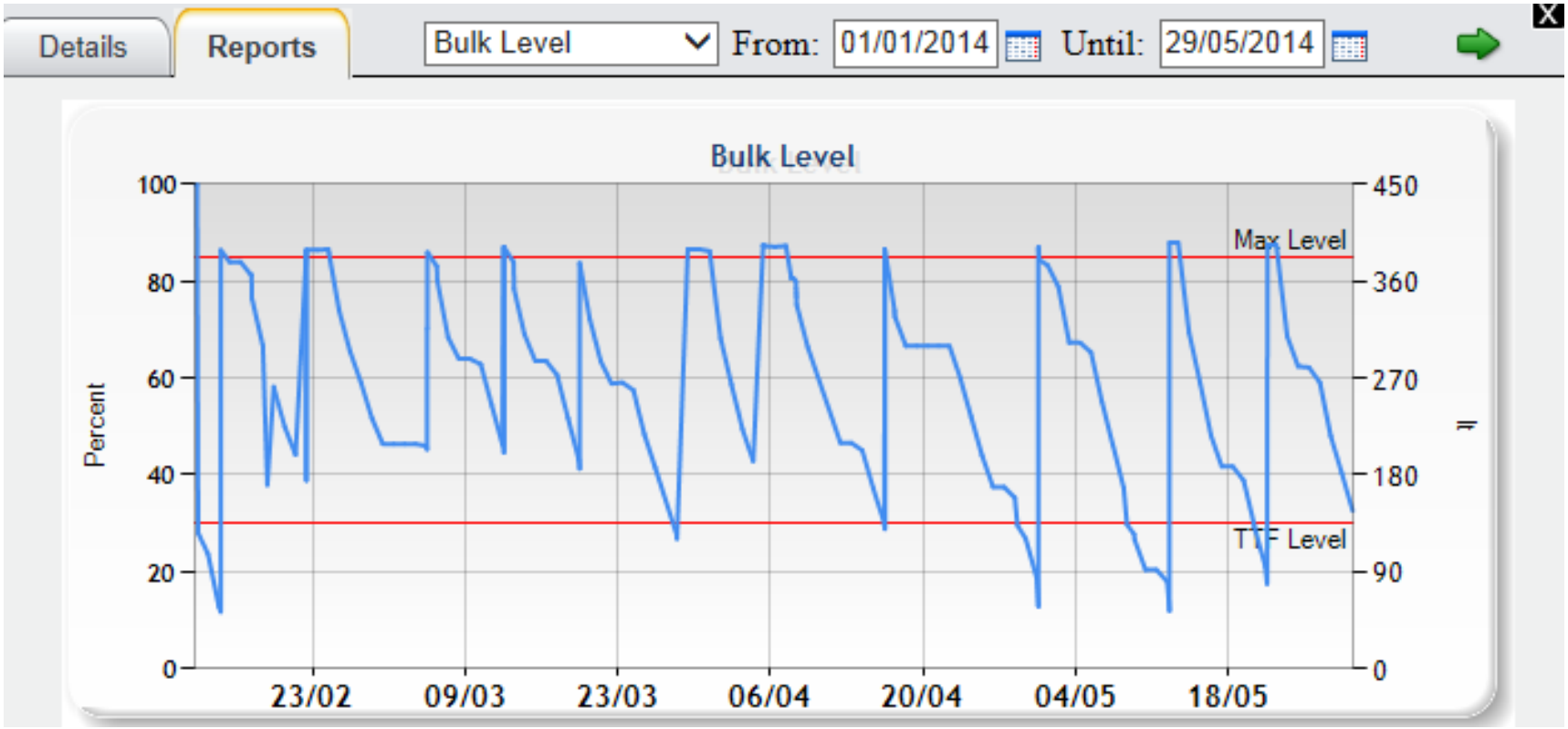
Example Improvement

Drop size improving when using WAC system



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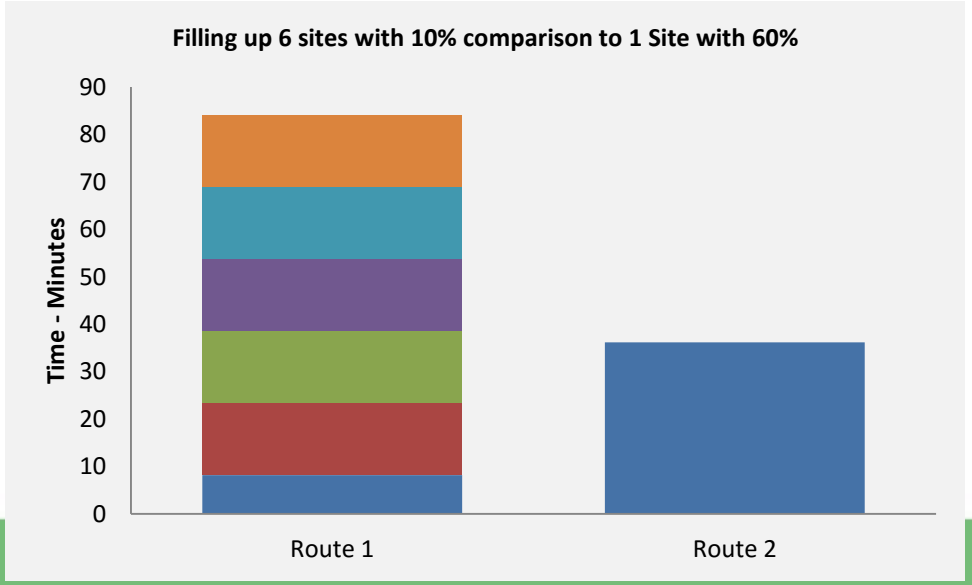
Theoretic Example for achieving ROI

Theoretic example – Truck routing

Filling 6 sites of 2000 Gallon tanks with 10% drop size compared to filling 1 site of 2000 Gallon with 60% drop size

Option 1	Fill up %	Fill Time T	Overhead T	Drive T	Total T	Accumulated T
Site 1	10%	4.2	4	0	8.2	8.2
Site 2	10%	4.2	4	7	15.2	23.4
Site 3	10%	4.2	4	7	15.2	38.6
Site 4	10%	4.2	4	7	15.2	53.8
Site 5	10%	4.2	4	7	15.2	69
Site 6	10%	4.2	4	7	15.2	84.2
Total		25.2	24	35	84.2	
Option 2	Fill up %	Fill Time T	Overhead T	Drive T	Total T	Accumulated T
Site 1	60%	25.2	4	7	36.2	36.2
Total		25.2	4	7	36.2	



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