national milk laboratories

# STREAMLINING DATA FLOWS: WIN:WIN SOLUTIONS

DTAS CONFERENCE

APRIL 2018

# Before we start....

- *Please be aware that NML is seeing increasing evidence of cross contamination between farms when using sensitive test methodologies, such as PCR.*
- *As test methods gain in sensitivity, the risk of cross contamination affecting test results increases.*
- *Please bear this in mind when considering development of in line sampling systems*

# Data flows:  The current process

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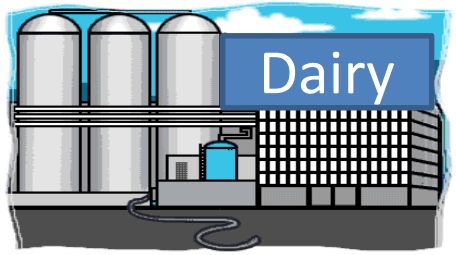
Test results



Collection data
(BCT55)

# Current process issues

- Reliance on hand written litres on labels

# Litres on pots: what we see at the lab

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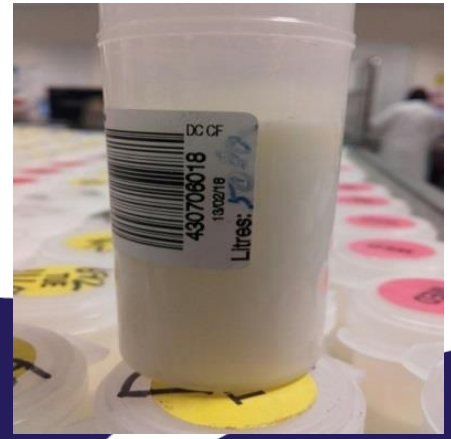
## GOOD

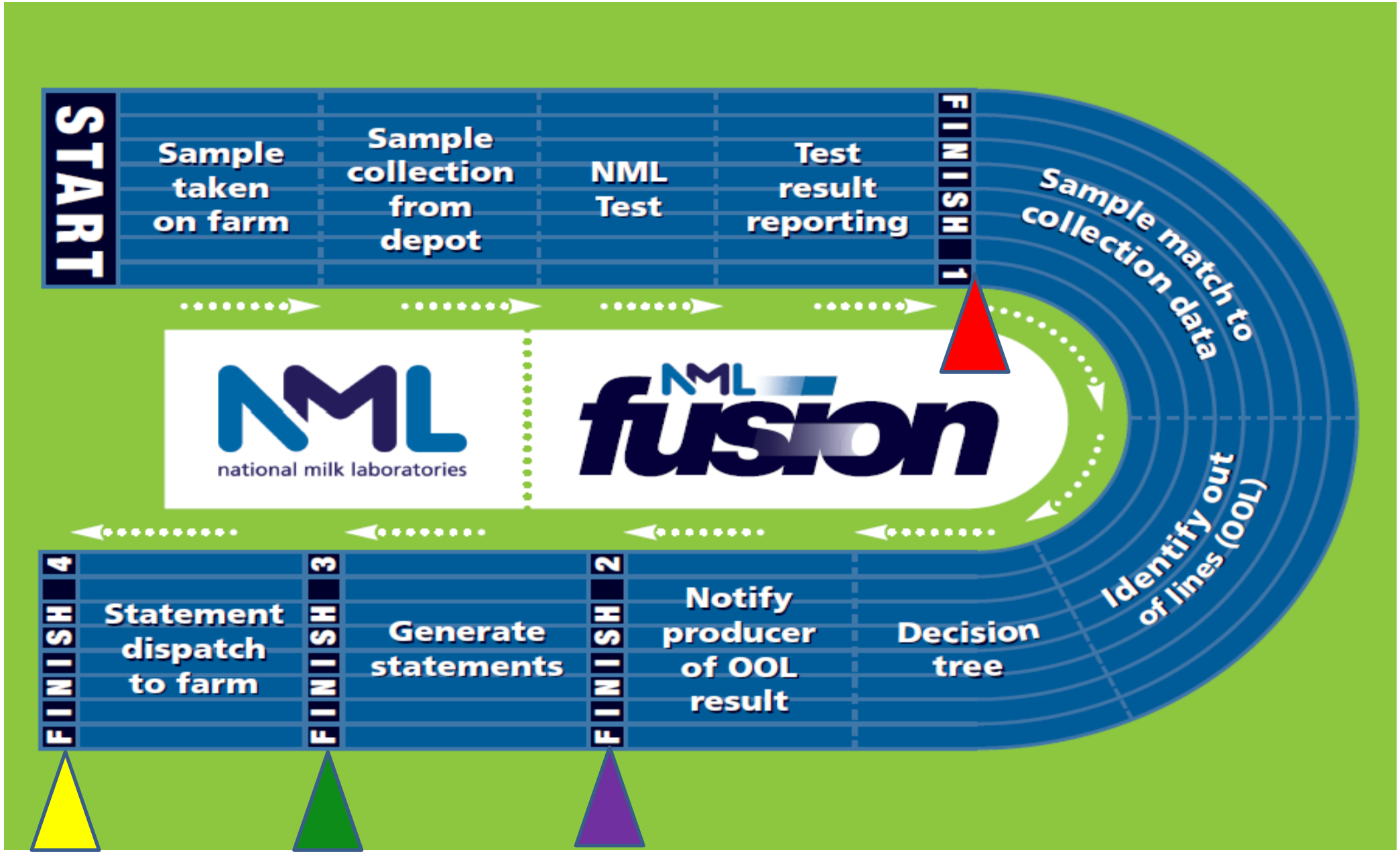
## NOT SO GOOD



# Current process issues

- Reliance on hand written litres on labels
- No litres on multivat samples – 0.5% per month
- Reliance on tanker drivers labelling samples in order of collection – sequential label numbers
- Challenges with matching samples with collection data
  - Some unmatched tests have to be ignored (300 per month)
  - Time consuming for the processor - cost

**Take advantage of latest communication technology to improve data flows and secure operational efficiencies**


START
Sample taken on farm
Sample collection from depot
NML Test
Test result reporting
FINISH 1
Sample match to collection data
Identify out of lines (OOL)
Decision tree
Notify producer of OOL result
FINISH 2
Generate statements
FINISH 3
Statement dispatch to farm
FINISH 4
NML
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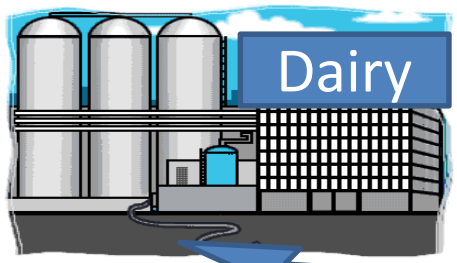
NML fusion

# THE PROCESS

Test results matched with collection data




Collection data (BCT55)

Collection data (BCT55)

# Where are we now?

- Data feed direct from haulier
  - Farm ID (not necessarily NML producer ID)
  - Collection time
  - Collection volume
  - Tanker ID
  - Driver ID
  - GPS
- Database matching based on sequential label number and sample date/time
- Manual matching when auto matching at NML does not achieve desired result

# Next steps

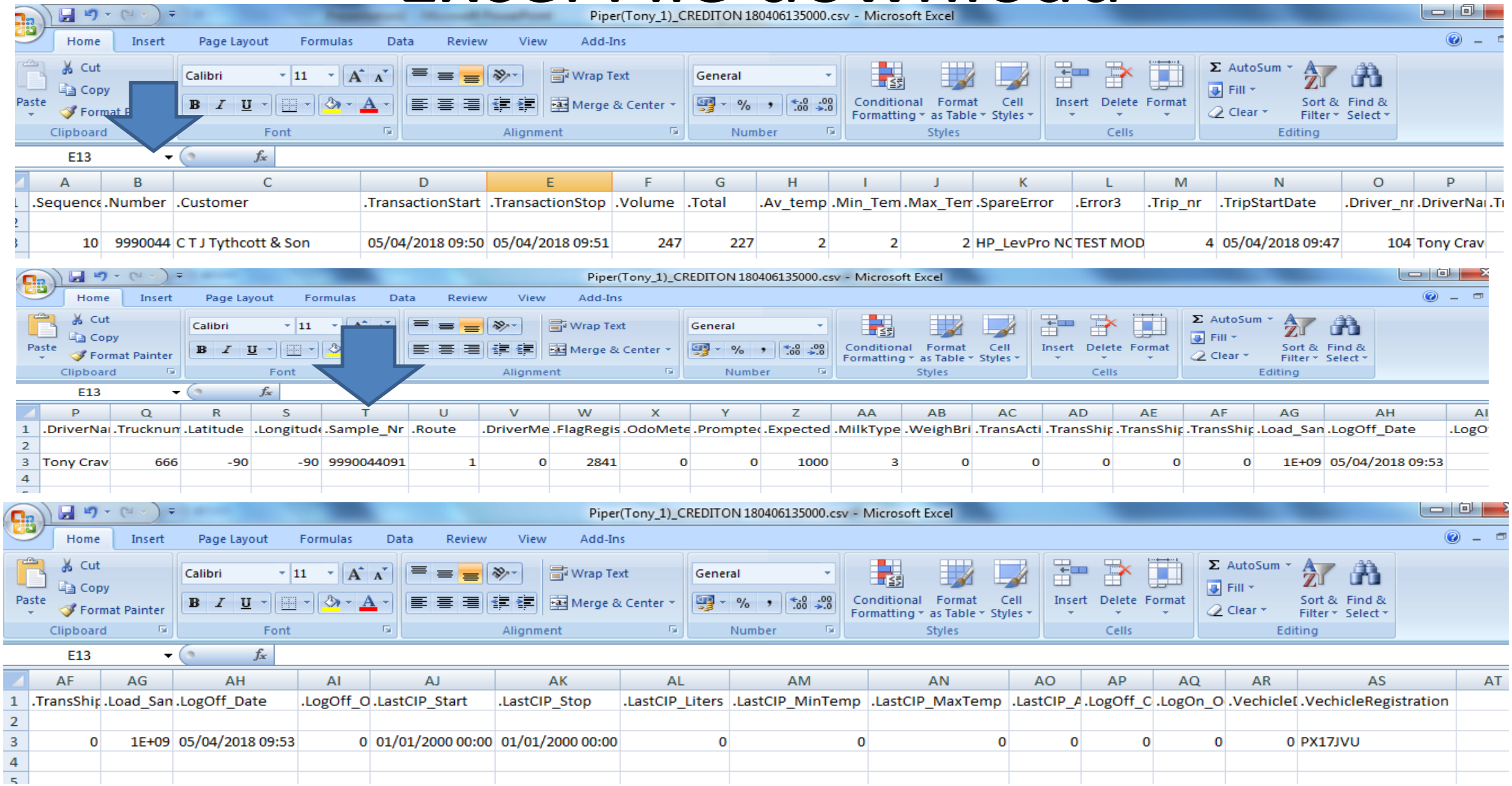
- Use of existing barcode label
- Label scanned or keyed in by the tanker driver
- Backup of NML matching system based on existing capabilities – so manual match if producer ID not included in collection data file

# Meller Flow Trans

- Work with Piper tanker systems
- Second largest in UK (also in discussion with Gardner Denver)
- Bar code reader to 25 characters
- GPS to identify the farm
- Mobile phone technology downloading collection data every minute
- Excel files to NML
- Display in the foyer- bar code reading and visibility on the portal.

YP14 VWY
MAGYAR
Constructeur

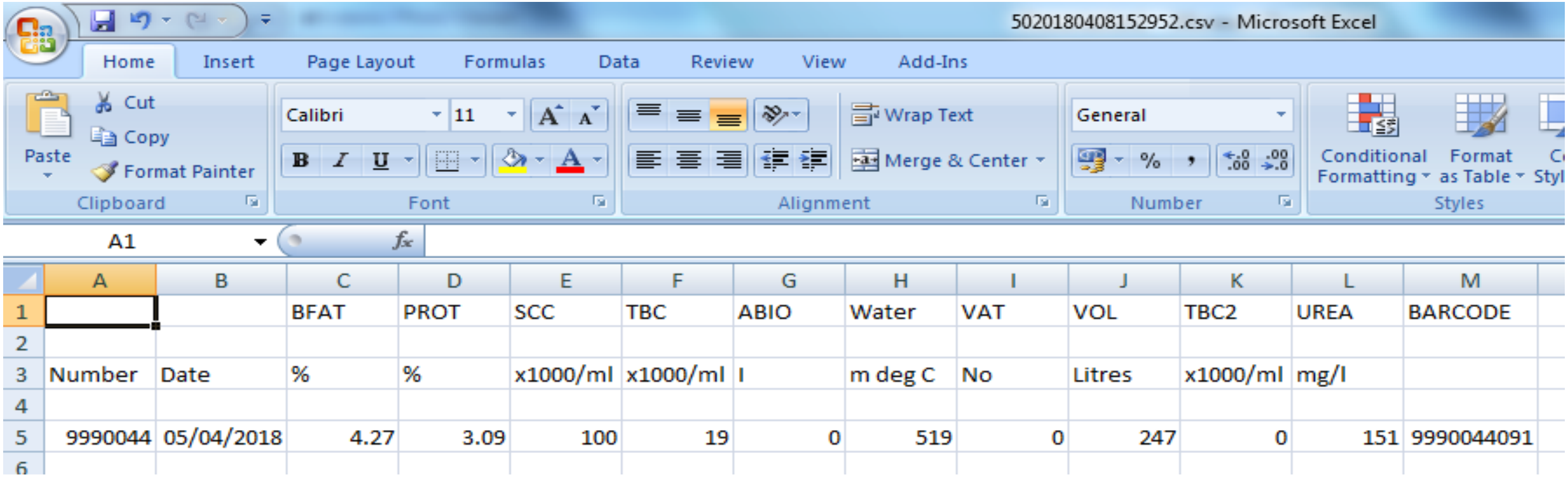
# Excel File download



# Excel file download data

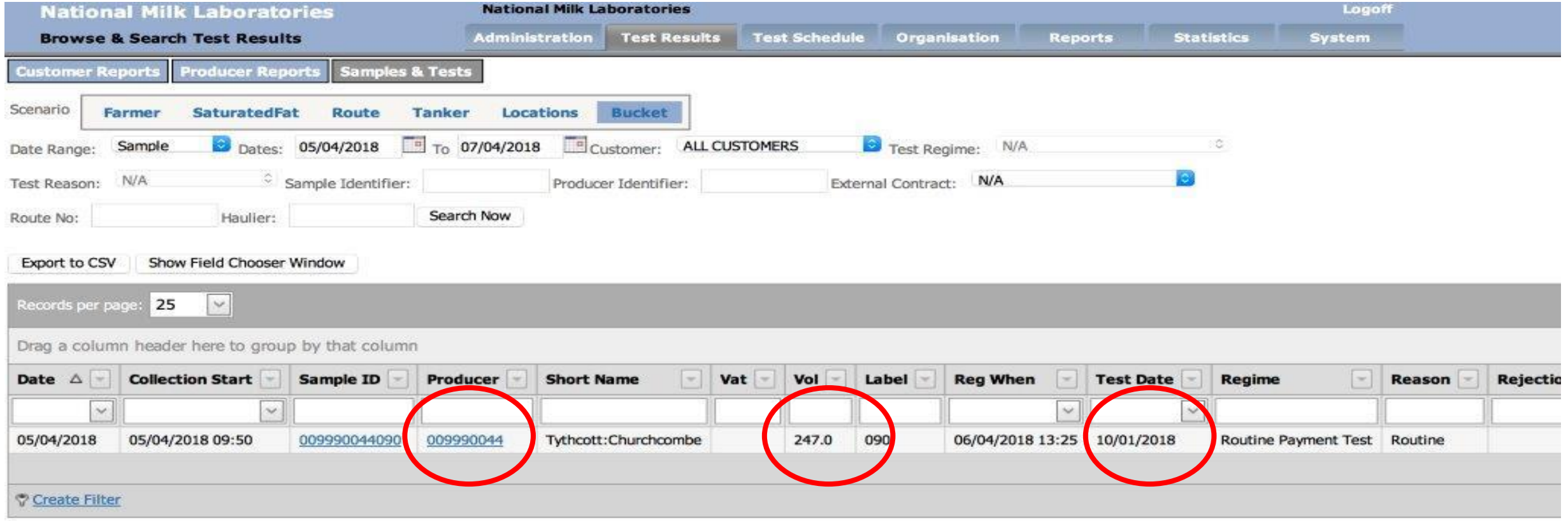
Producer number, Producer name, transaction start date and time, transaction stop date and time, Vat volume, average, minimum and maximum temperature, any errors, trip number, trip start date and time, driver name, truck number, latitude, longitude, sample bar code number, driver message, expected quantity, milk type, logoff date and time, CIP temperatures, dates and times, Vehicle reg.

# Data imported and auto matched




| | A | B | C | D | E | F | G | H | I | J | K | L | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | BFAT | PROT | SCC | TBC | ABIO | Water | VAT | VOL | TBC2 | UREA | BARCODE |
| 2 | | | | | | | | | | | | | |
| 3 | Number | Date | % | % | x1000/ml | x1000/ml | I | m deg C | No | Litres | x1000/ml | mg/l | |
| 4 | | | | | | | | | | | | | |
| 5 | 9990044 | 05/04/2018 | 4.27 | 3.09 | 100 | 19 | 0 | 519 | 0 | 247 | 0 | 151 | 9990044091 |
| 6 | | | | | | | | | | | | | |

# Matched data in NML Fusion



# Targets

- ✓ Minimise the number of samples that cannot be matched reliably to collection data
- ✓ Complete the matching process with minimal manual input on farm
- ✓ Provide better management information to processors, hauliers and farmers
  - ✓ Route based queries
  - ✓ Driver based queries
- ✓ Undertake development levering value from latest technology and without adding to cost
  - ✓ Ease of data transfer via cloud and FTP sites
- ✓ Cease requirement for handwritten litres on pots

# Haulier engagement

- The key goal is for matching of sample to farm (and vat) prior to despatch from farm on tanker
- Importance of data cleansing – check for current producer ID's
- Different approaches can be adopted to achieve this goal:
  - Barcode scanning
  - Manual entry of sample ID into tanker system

# Cost:benefit analysis for haulier

| Cost | Benefit |
|---|---|
| Cost of implementing a solution for recording farm ID on tanker (taken from barcode) and providing this ID in the data file | No requirement for recording litres on pots |
| Cost of despatching complete file to NML FTP site | Increased rate of effective sampling (fewer rejections) |
| | Increased ability to follow up tanker/driver related sampling issues |
| | Building on existing system capabilities |
| | Savings for processor customers – fewer wasted samples/tests |

# Next steps

- NML looking to work with hauliers to introduce matching on farm – NML looking to prepare specification for data feed
- Cease requirement for litres on pot labels when matching working effectively
- Consider scope for further efficiencies – sample ID’s, depot codes etc

# Thank you....

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