SAP Industry Solution - Oil & Gas

Crude oil transportation through bowsers

Enabling Processes       Energizing OIL

Prepared by:-
SD/ IS Oil & Gas Team
ERP
• Introduction of SAP- SD/ IS- Oil & Gas

• Background of business process

• New Solution in SAP

• Way forward...
Value chain

Upstream

- Exploration & Production

Midstream

- Transportation & Refining/Processing

Downstream

- Distribution & Retail Sale

Conquering Newer Horizons
Transportation & Distribution
Business scenario

Bowsers ply on

Producing locations:

- Lack Pipeline facility
- Temporary setups
- Exigencies
Business Landscape

Dikom

Duliajan

Digboi
Conquering Newer Horizons

TD Solution

Vehicles
- Capacity
- Plant
- Regd. No.

Routes
- KMs
- Connection pts

Loading points
- Temperature
- Density

Delivery points
- Temperature
- Density
**Transaction flow**

1. Planner creates a PO for crude
2. Delivery docs are created for each bowser movement
3. Scheduling a Shipment Vehicle, planned load/unload dates
4. Assign Delivery doc to Shipment
5. Confirm QCI parameters
6. Actual Unloading
7. Confirm QCI parameters for crude/formation water
8. Actual Loading
9. Reports
   - Quantity of crude transferred
   - Vehicle wise movement
   - Distance travelled
10. Material movement in the background
Pros & Cons of original implementation

- Stable system
- Repository data of all crude oil tanker movements in SAP
- Material movements in background
- Posting of Loss/ gain of crude
- In-transit storage location
- Various reports
Pro & Cons of original implementation

- Cumbersome
- Dependence on manual records
- Multiple sources of truth
- Manual generation of SES
- No Cost reports
Working out the New Solution

Conquering Newer Horizons
Solution overview

- **Shipment**: Confirm shipments in the new Custom TD screen
- **KMS Run**: Date wise vehicle movement data can be seen in a report
- **E-Log book**: In the same screen e.g. Overtime, reimbursements, Shut down hrs,
- **SES**: Automatic proposal of Quantities of various services against a particular PO/Period of service
- **Cost Report**: Loading location wise Cost of evacuation of crude
Highlights of new solution

- Standard SES validations preserved.
- Qty release on creation of SES
- Completely takes out calculation effort for SES creation.
- E-Log book (Detail & Summary views)
- Ready view of all bowsers against respective contracts and their validity.
- Report on Cost of evacuation of crude oil from a particular location.
- Reduced human error
- Bill tracking functionality preserved
- Better accountability
- Better fleet administration
Business transactions: New Solution

Custom UI: Converges multiple steps in a single intuitive user screen

Planner creates a PO for crude

Delivery docs are created for each bowser movement

Scheduling a Shipment Vehicle, planned load/unload dates

Assign Delivery doc to Shipment

Confirm QCI parameters

Actual Loading

Material movement in the background

Actual Loading

Reports
- Quantity of crude transferred
- Loss /gain
- Distance travelled

Single screen view and processing
Highlights of Highly Customised screen

End-user EFFORT

Training requirement.

• Auto populate available Delivery documents
• Single page entry and view of loading and unloading time
• Automatic QCI parameter confirmation.
• Handles scenarios of partially processed shipments
• Easy to review data entered
Extend functionality

Reduce dependence on excel and other manual records.
Conquering Newer Horizons

Extend functionality

Automatic calculation of cumulated QUANTITIES under various services at the end of a period of service.

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Conquering Newer Horizons
Established Link between Bowser Contracts and *TD Vehicle* Master data
Challenges addressed in New Solution

Release Order (PO) → Monthly SES

One SES

Multiple Vehicles

Release Order (PO) → Monthly SES
### Vendor Wise Vehicle Report

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Accounting for **MULTIPLE** services included in the contract

**Info in TD Shipments created:**
- Total KMS run
- Routes taken
- Source & Destination
- Date of operations
- Quantity of crude transferred
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<th>Date</th>
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<th>Total KMs</th>
<th>Driver OT</th>
<th>Helper OT</th>
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Challenges addressed in New Solution

Accounting for **MULTIPLE** services included in the contract

- Fixed Charges per day
- Running Charges per KM
- Driver Overtime
- Helper Overtime
- Municipal tax
- 4W Vehicle Reimbursement
- Shutdown Penalty
Challenges addressed in New Solution

Finding **RATES** of various services

**Normal SES process:**
User to determine rate for each service

**New process:**
Codification of services
Automatic rate determination
## History of RATES

### Display Total Price (PRS) : Overview

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<th>Unit</th>
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Reports on

- Quantity of crude transferred.
- Vehicle wise crude movement details.
- Distance travelled for crude transport.
- Cost of evacuation of crude - location wise.