Guaranteed Safe & Non Hazardous Tank Cleaning Solution!

Why Irvine & Vision for Tank Cleaning.

- V6 is a novel engineered safe to use chemical solution.
- Rapid, typically 4 week tank cleaning turnaround.
- Generates a substantial revenue from recovered crude.
- Safe and minimal site disturbance at tank location.
- Leaves minimal non hazardous inert solids.
- No further remediation of solids required.
- Leaves drain disposal quality water (pH neutral).
- No toxic emissions or byproducts.
- Can create local employment.

Health & Safety

- Small, typically 5 person team.
- No personnel tank entry required at any part of the cleaning process.
- V6 requires no heating, no boilers or fuel at site.
- V6 requires minimal equipment at site.
- V6 is non-flammable.
- V6 has no acid content.

The Environment

- V6 is an environmentally friendly chemical, 100% organic.
- V6 is injected with carrier crude, 100% soluble, no contact with the environment and easily recovered from the crude at the crude processing stage.
- V6 has no impact on any metal content including nickel, vanadium, ferum and sodium due to it’s 100% organic makeup.
- V6 has no impact on sulphur, mercury or salt content.

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“Supplying a Guaranteed Safe & Non Hazardous Tank Cleaning Solution”

“No more long duration and hazardous acid tank cleaning operations!”
Tank Storage and Cleaning – The Main Issues:

- Long term sludge in storage tanks is an accumulating problem.
- Sludge volume takes up valuable crude storage space.
- Typical conventional acid based sludge removal:
  - Health & safety risks are high for personnel and facilities (long term exposure to tanks and ignition risks).
  - Quality and amount of any recovered oil is unknown, a lost resource and revenue to producers.
  - Storage tanks out of commission, typically ~12 to 18 months.
  - Solids in sludge (sand) requires further cleaning/treatment.
  - Water from sludge requires further treatment.
- A personnel and equipment intensive operation.
- Is an expensive and timely operation to the producer/operator.

Vision Petroleum’s Solution - Features

Formulated Site Specific V6 Sludge Breaker:

- Guaranteed safe and rapid sludge removal, typically ~4 weeks!
- The formulation itself maximises sludge breakers interaction with the sludge.
- Maintains fluidity of the sludge, creating processible crude.
- Assist with surfactant dispersion & penetration.
- Minimizes and prevents wax formation.
- No toxic byproducts, leaves wet solids for easy disposal.

V6 Sludge Breaker Properties:

- Low temperature, nano chemistry hydrocarbon recovery agent.
- Surfactant based sand control chemical.
- Low temperature, nano chemistry heavy oil viscosity modifier.
- Low dosage nano chemistry core demulsifier.
- Nano chemistry sand oil surfactant.
- Universal paraffinic pour point depressant.

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Benefits of the V6 Sludge Breaker

- >90% crude recovery from the sludge.
- Recovered crude meets with sales crude quality turning sludge into a substancial revenue.
- Rapid cleaning schedule, typically 4 weeks (conventional acid cleaning methods can be as long as 18 months!).
- Rapid tank turnaround time.
- Typically a 5 person team with minimal equipment.
- Excellent mechanical tank cleaning process.
- Greatly improved health and safety liability as far less tank exposure to personnel.
- More environmentally friendly as remaining solids and water are treated within the process.

EXAMPLE SCHEDUL

**Tank Pre-survey**
Sampling for Laboratory Tests (2 weeks)

**Site Team Mobilisation** (1 week)

**Site Tank Verification Sampling** (1 week)

**Injection of V6 with Carrier Crude, Chemical Reaction** (1 week)

**Water is Drawn Off** (1 day)

**Sludge Sample with V6 Added, Displays the Separation Process, Typically under 4 minutes**

**Remaining Non Hazardous Solids Removed** (1 week)

**Liberated Crude Piped to Process facility (Pumping 5 days)**

**Tanked is Ready for Service (complete operation start to finish ~7 weeks)**

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