



# *OIL RECOVERY IN SLUDGE OF TANKS AND EFFLUENT SYSTEMS*

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# *EXCO Booster Clean Systems*

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The EXCO Booster Clean System was created for oil recovery by the patent Technology by ultimate research Nano biochemicals and super separators.

Application:

- Tank Cleaning.
- Oil Recovery in sludge.
- Effluent Treatment.
- Produced water treatment.

The oil sludge are composed by water, hydrocarbon, and sediment . By our technology we separate in line with these components .

Oil 0.5% BSW

Water less than 200 ppm of oil

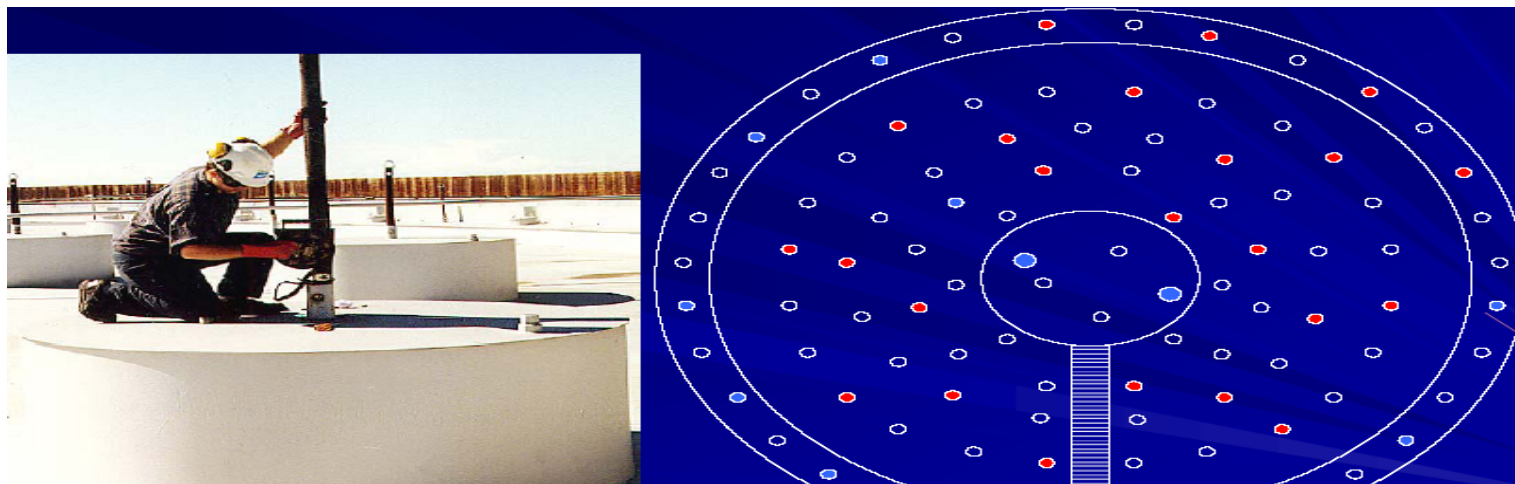
Sediment 5% humidity.

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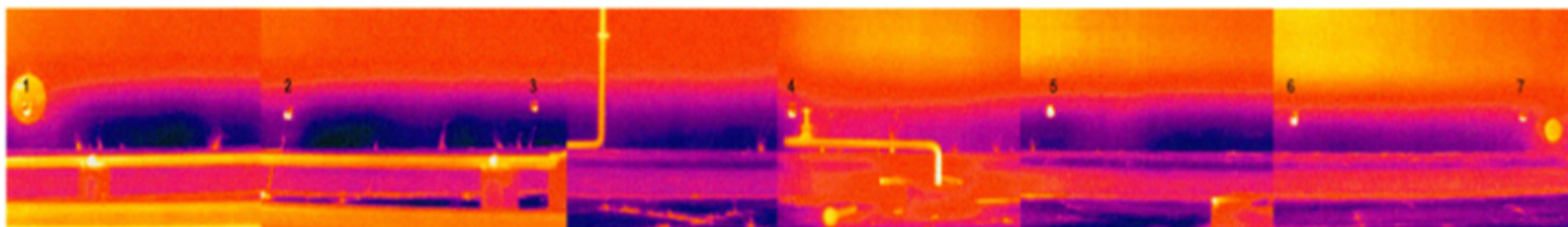
- **Oil Recovery and Cleanning**

- Before start we make dedicated survey.
  - Sludge Age.
  - Sludge Amount.
  - Sludge distribution (Thermografic Studio, 3D Profiling)
  - Cleanning Lab Simulation.
  - % Oil, % Water, and % Sediment.
  - Oil Quality.
  - Water Quality.

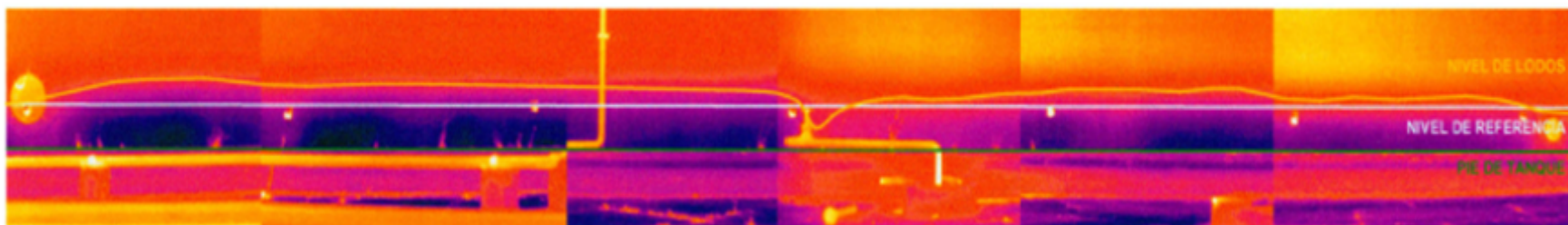


Samples and 3D Studio.

PEMEX EXPLORACION Y PRODUCCION  
MAPA 1 IMAGEN TERMOGRAFICA TANQUE TV 4 CRUDO  
VISTA NORESTE



MAPA 1 IMAGEN TERMOGRAFICA CON LOS PUNTOS DE REFERENCIA



MAPA 1 IMAGEN TERMOGRAFICA INDICADORES DE NIVEL

**VISTA EN PERSPECTIVA DE LA DISTRIBUCIÓN Y PROFUNDIDAD  
DE LODOS DEL TANQUE TV-4**

**SIMBOLOGIA :**

**1** PUNTO DE REFERENCIA

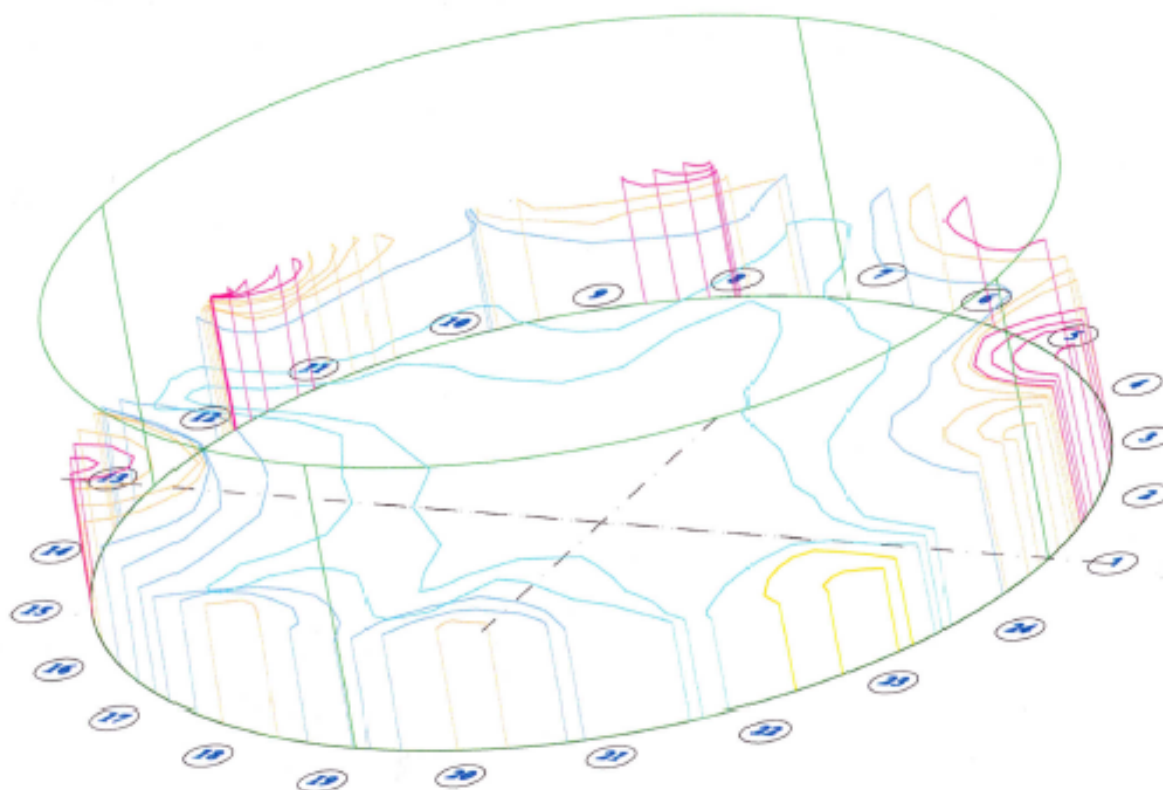
— de 0.90 a 1.00 m

— de 0.80 a 0.89 m

— de 0.70 a 0.79 m

— de 0.60 a 0.69 m

— de 0.50 a 0.59 m



**DIAMETRO 40.00 m.**  
**ALTURA 12.56 m.**



Sludge Depth (cm)

TANK 102 Sludge Survey - May 2005

- 25.0-30.0
- 20.0-25.0
- 15.0-20.0
- 10.0-15.0
- 5.0-10.0
- 0.0-5.0

Sludge  
Depth (cm)

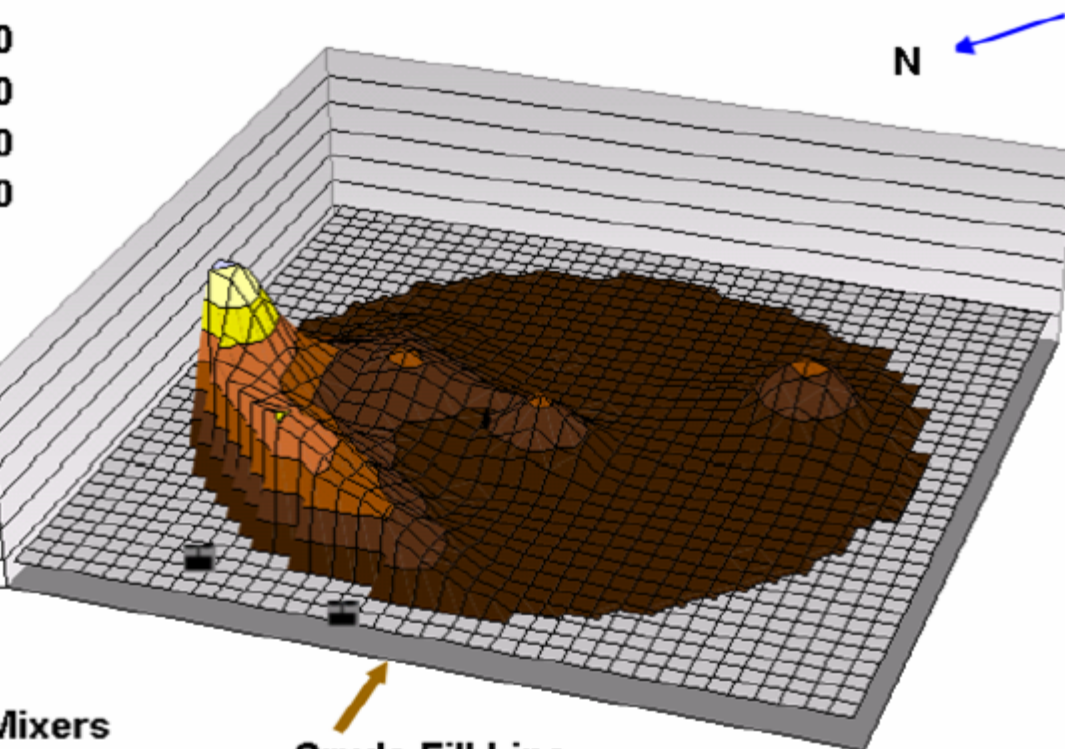
30  
25  
20  
15  
10  
5  
0



Crude Mixers

Crude Fill Line

N



## Sediment Stables



# Traditional Mechanical Cleaning vs Exco Booster Tech



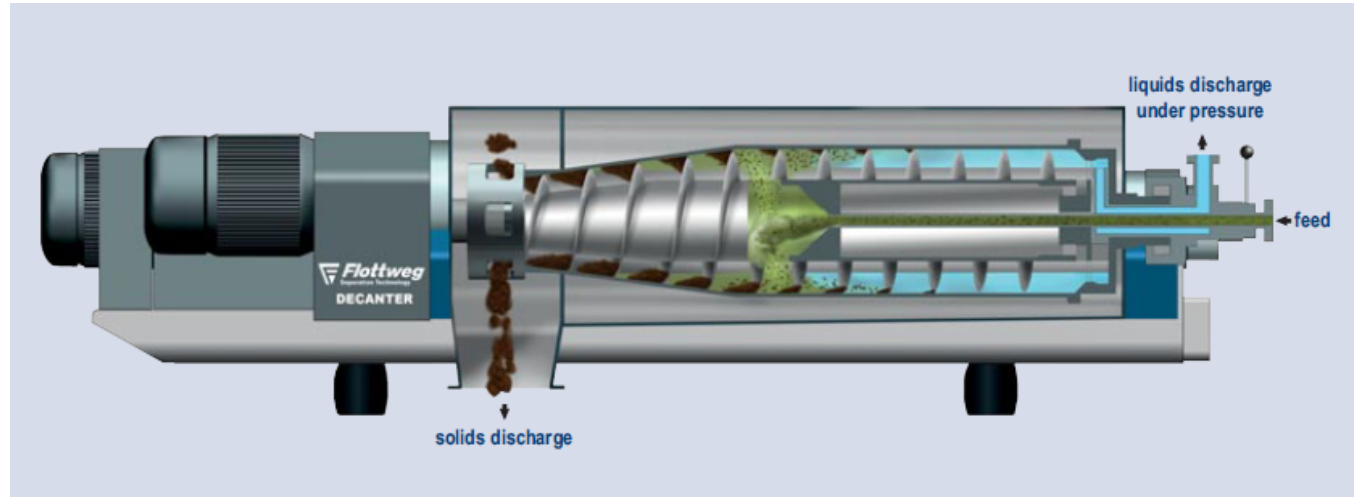
## • Mechanical Cleaning

- *0% Oil Recovery.*
- *2-8 Month Timeline.*
- *\$ 98 US Dll m3 Sludge Disposal*
- *0% ROI*
- *High \$ Additional Cost for manual cleaning.*

## • Exco Booster Tech

- *80%-95% Oil Recovery.*
- *0.5-2 Months Timeline.*
- *120% ROI*
- *5-20% Disposal Sediment.*
- *Automatic System.*

## Decanter two phases



## Tricanter (3 phases separator)

