



INVENTORY RECOVERY USING NURITCHEM 508MM

Oil Mop, LLC using new methodology, was able to treat and recover paraffin crude oil tank bottoms. The success of our treatment was in large due to the use of Nuritechm 508MM as a paraffin modifier.

We performed this trial on a 100,000 bbl crude oil storage tank containing approximately 4,000 bbls of heavy paraffinic crude oil tank bottoms.

The following recovery method was employed with the final results as stated:

1. Sludge was removed from the storage tank utilizing hot water as a slurry medium and placed in holding tanks. Once settled, the free water was decanted, re-heated and used again as a slurry medium to further remove more sludge.
2. The mixed paraffin sludge which contained approximately 5% solids and 20% water was transferred in 200bbl batches to a mixing tank equipped with four 10 H.P. mixers and a steam coil to heat the sludge.
3. 30 gallons of Nuritechm 508MM was added to each 200 bbl batch of paraffin sludge and the mixture was mixed and heated to 140°F. 200 bbls of diesel was then added as cutter stock to blend all the paraffinic sludge. The mixing and heating continued for an additional 1 hour maintaining the 140°F temperature.
4. At the end of the 1 hour period, the mixers were turned off and the remaining water immediately separated out to the bottom of the mix tank where it was decanted and re-used again as a slurry medium. The remaining hot mixture of paraffin sludge, diesel and Nurtrichem 580MM was then transferred to a vibrating shell shaker above the oil/water separator containing a series of weir plates. The hot solids separated from the mixture by passing through the vibrating shell shaker and were then collected in a roll-off box connected to the shaker. The recovered solids in the roll-off box were oil and water free. The remaining oil (diesel and recovered paraffin hydrocarbons) were passed through the oil water separator where it was skimmed off the top weir plate and transferred to a crude oil holding tank for blending with fresh crude oil feedstock.

Adding the Nuritech 580MM to this process assisted with the following:

- No foaming problems while adding diesel cutter stock
- Modified the paraffin's in the sludge to such an extent that they became dispersed in the diesel at a lower safe operating temperature
- Allowed the paraffin to stay in solution without separation at ambient temperature.
- Allowed the return of valuable hydrocarbons back to inventory
- Minimized waste

In conclusion, Oil Mop, LLC was able to recover approximately 3,200 bbls of paraffin tank bottoms and return them to inventory for future processing.