## EMA CJ-4

- CJ-4 Oil Field Performance
- Chemical Limits OK No Issues with EATS
- Additional Performance Issues

Oxidation – IIIF-IIIG SL-SM Robo Asking for HD test data in Robo

**Shear Stability (Correlation?)** 

**Aeration (EOAT Discrimination Concern) No Response Surv Panel** 

**Water Emulsion** 

**Oil Filter Plugging** 

Fuel Economy (< 3.5 HTHS)

**Turbo Deposit Test?** 



## PC 11

 No Specific Requirement for Performance Improvement Identified for US10 Compliant Engines

Letter to API to Change Language – CJ 4 Recommended/Required for US10 Engines



## **EMA – Biodiesel Status**

## **B20 Effects on Engine Oil**

Performance Concerns

```
NBB/EMA Testing T12,ISB,C13
Oxidation
Deposits
```

Corrosion
TAN >
Fuel Dilution
Oil Drain Interval Reduction
Post Injection Test?
Bio Spike of Engine Oil?

After Treatment? (SCR Catalyst?)

Recommendations

**Support Task Force** 

Bio Compatibility Bench Test Task Force Oxidation, TAN, Corrosion, Fuel Dilution

Oil Analysis Test Development Task Force Methods – Bio - Used Oil Analysis

