# CONSTRUCTION EQUIPMENT
## A12574 VOLVO ECR145C 110642 - DIESEL ENGINE

**Sample No:** VCP412428
**Oil Type:** MOBIL 15W40
**Job No:** A12574

### SAMPLE INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| Sample Number | | **VCP412428** | VCP399895 | VCP383592 | VCP358744 |
| Sample Date | | **08 May 2024** | 23 Feb 2023 | 21 Oct 2022 | 05 May 2022 |
| Machine Hours | | **8155** | 7886 | 7645 | 7364 |
| Oil Hours | | **250** | 241 | 250 | 0 |
| Oil Changed | | **Changed** | Changed | Changed | Changed |
| Sample Status | | **NORMAL** | NORMAL | ATTENTION | ATTENTION |

### OIL CONDITION

| | | | | | |
|---|---|---|---|---|---|
| Visc @ 100°C | cSt | **13.4** | 13.4 | 12.4 | 12.3 |
| Base Number (BN) | mg KOH/g | **7.1** | 9.0 | 11.9 | 9.7 |
| Oxidation (PA) | % | **41** | 54 | 83 | 70 |

### CONTAMINATION

| | | | | | |
|---|---|---|---|---|---|
| Water | % | **NEG** | NEG | NEG | NEG |
| Soot % | % | **0.5** | 0.2 | 0.2 | 0.3 |
| Nitration (PA) | % | **61** | 53 | 57 | 55 |
| Sulfation (PA) | % | **46** | 49 | 64 | 57 |
| Glycol | % | **NEG** | NEG | NEG | NEG |
| Fuel | % | **<1.0** | <1.0 | <1.0 | 2.3 |
| Silicon | ppm | **6** | 4 | 6 | 6 |
| Sodium | ppm | **<1** | 0 | 2 | 1 |
| Potassium | ppm | **3** | 1 | 2 | <1 |

### WEAR METALS

| | | | | | |
|---|---|---|---|---|---|
| Iron | ppm | **33** | 4 | 8 | 7 |
| Copper | ppm | **1** | 0 | <1 | <1 |
| Lead | ppm | **<1** | <1 | <1 | 0 |
| Tin | ppm | **<1** | <1 | <1 | <1 |
| Aluminum | ppm | **3** | <1 | 2 | <1 |
| Chromium | ppm | **<1** | <1 | <1 | <1 |
| Molybdenum | ppm | **16** | 48 | 39 | 42 |
| Nickel | ppm | **<1** | 0 | 0 | 0 |
| Titanium | ppm | **1** | <1 | 0 | 0 |
| Silver | ppm | **<1** | 0 | <1 | 0 |
| Manganese | ppm | **<1** | <1 | <1 | <1 |
| Vanadium | ppm | **<1** | 0 | <1 | 0 |

### ADDITIVES

| | | | | | |
|---|---|---|---|---|---|
| Calcium | ppm | **2053** | 1533 | 1669 | 1618 |
| Magnesium | ppm | **199** | 727 | 466 | 532 |
| Zinc | ppm | **1100** | 1207 | 1086 | 1127 |
| Phosphorus | ppm | **962** | 962 | 899 | 929 |
| Barium | ppm | **0** | 0 | 2 | 0 |
| Boron | ppm | **7** | 13 | 56 | 56 |


**JAMES J ANDERSON**
6958 TORRESDALE AVENUE
PHILADELPHIA, PA
US 19135
Contact: JOHN HERBUT
herb@jjaconstruction.com
T: (215)850-9051
F: (215)427-0208

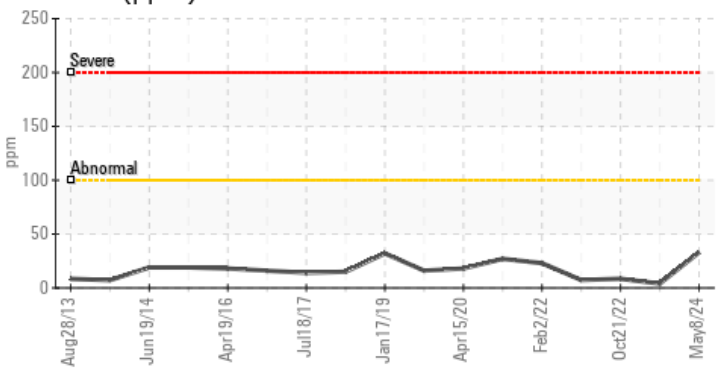

## Diagnosis

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

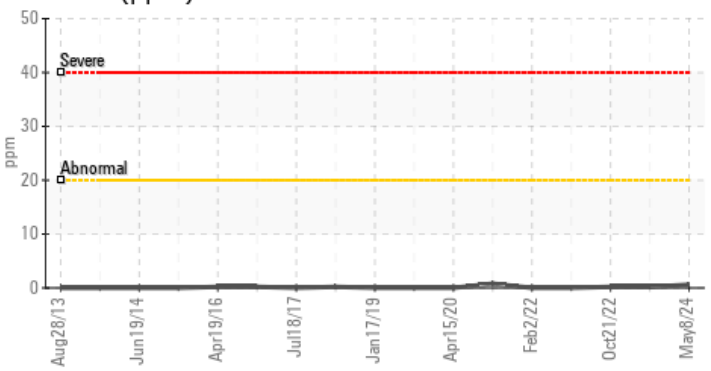
**Depot:** JAAPHI
**Unique No:** 11032247
**Signed:** Wes Davis
**Report Date:** 16 May 2024

## GRAPHS

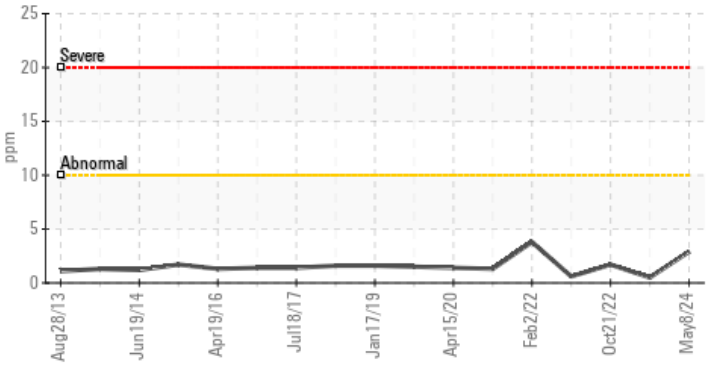
### Iron (ppm)



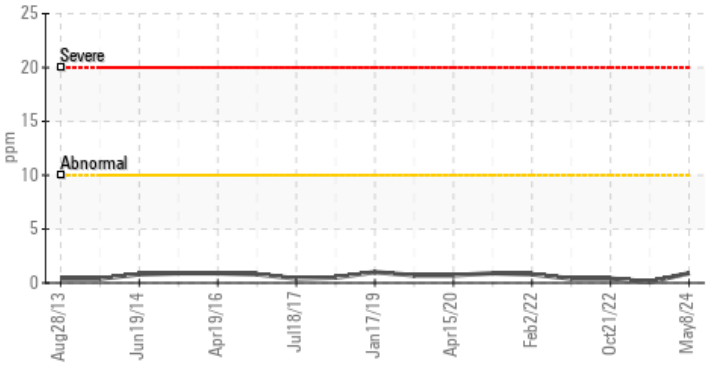

### Lead (ppm)



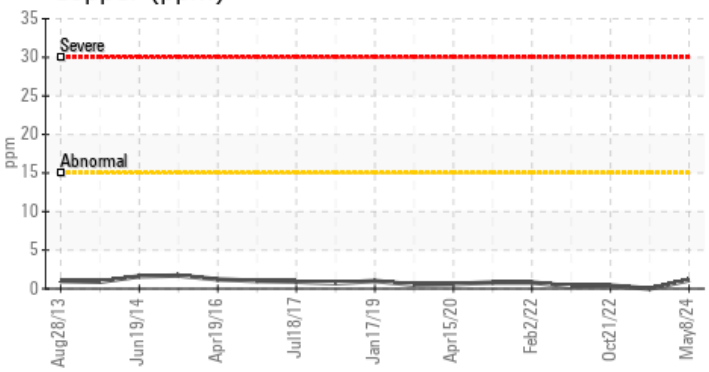

### Aluminum (ppm)



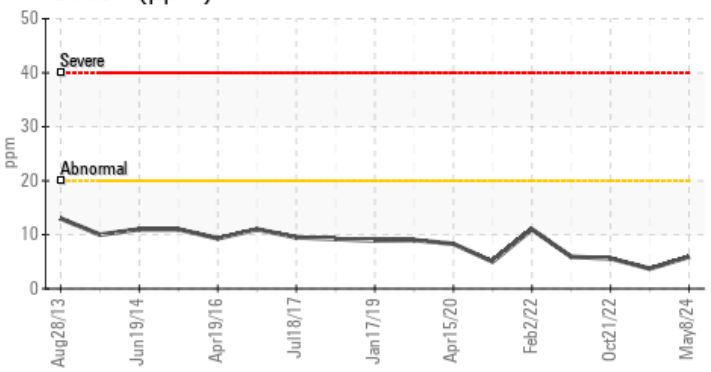

### Chromium (ppm)



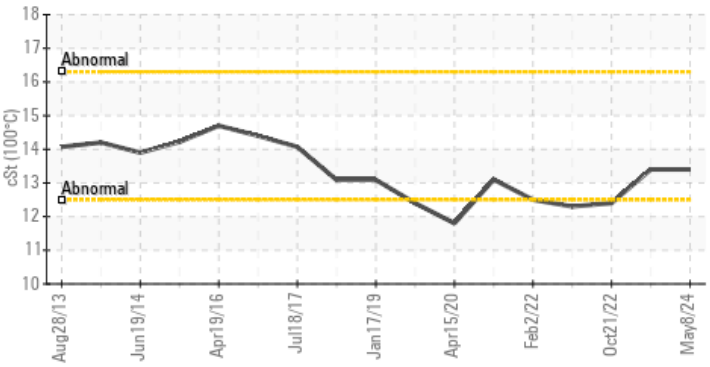

### Copper (ppm)




### Silicon (ppm)




### Viscosity @ 100°C




### Base Number