



# CONSTRUCTION EQUIPMENT

## 703273 - DIESEL ENGINE



**Sample No:** VCP449805  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 703273



### SAMPLE INFORMATION

Sample Number	<b>VCP449805</b>	VCP413304	VCP422036	VCP351683
Sample Date	<b>26 Apr 2024</b>	15 Aug 2023	12 May 2023	18 Feb 2022
Machine Hours	<b>17538</b>	17124	17020	16264
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

**TRADEMARK METALS RECYCLING - ORLANDO - KAYLEY**  
 317 WEST KALEY AVENUE  
 ORLANDO, FL  
 US 32806  
 Contact: RYAN BOWDEN



### OIL CONDITION

Visc @ 100°C	cSt	<b>12.4</b>	13.3	12.6	12.6
Base Number (BN)	mg KOH/g	<b>8.2</b>	11.0	9.5	10.6
Oxidation (PA)	%	<b>90</b>	74	84	95

T: (863)679-7595  
 F: (863)679-2871

### 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.



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.8</b>	0.1	0.5	0.6
Nitration (PA)	%	<b>76</b>	40	66	75
Sulfation (PA)	%	<b>63</b>	59	63	69
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>6</b>	9	6	6
Sodium	ppm	<b>3</b>	2	0	17
Potassium	ppm	<b>&lt;1</b>	2	2	11



### WEAR METALS

Iron	ppm	<b>10</b>	2	7	12
Copper	ppm	<b>2</b>	3	1	3
Lead	ppm	<b>1</b>	<1	<1	1
Tin	ppm	<b>0</b>	<1	<1	<1
Aluminum	ppm	<b>1</b>	1	<1	1
Chromium	ppm	<b>0</b>	<1	<1	<1
Molybdenum	ppm	<b>42</b>	43	45	41
Nickel	ppm	<b>0</b>	0	<1	<1
Titanium	ppm	<b>0</b>	<1	0	0
Silver	ppm	<b>0</b>	<1	0	0
Manganese	ppm	<b>0</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	<1	0	0



### ADDITIVES

Calcium	ppm	<b>1692</b>	1680	1484	1751
Magnesium	ppm	<b>558</b>	549	552	540
Zinc	ppm	<b>1136</b>	1137	1073	1099
Phosphorus	ppm	<b>959</b>	931	904	983
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>31</b>	74	35	52

**Depot:** TMRLAK  
**Unique No:** 11006056  
**Signed:** Wes Davis  
**Report Date:** 02 May 2024

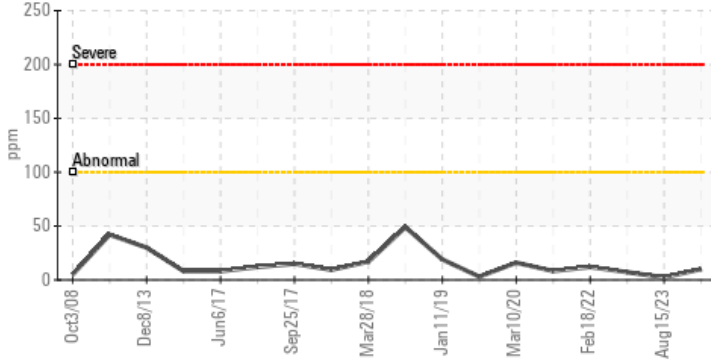


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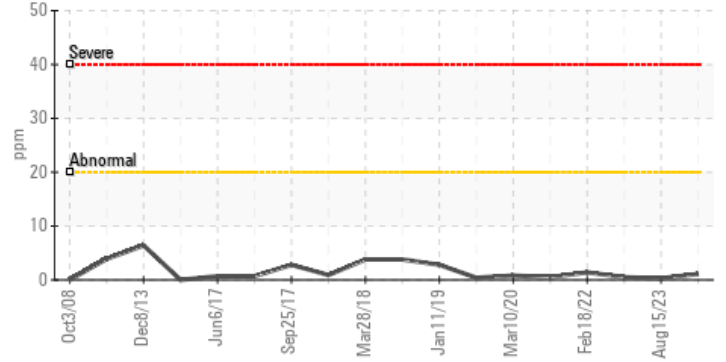


## GRAPHS

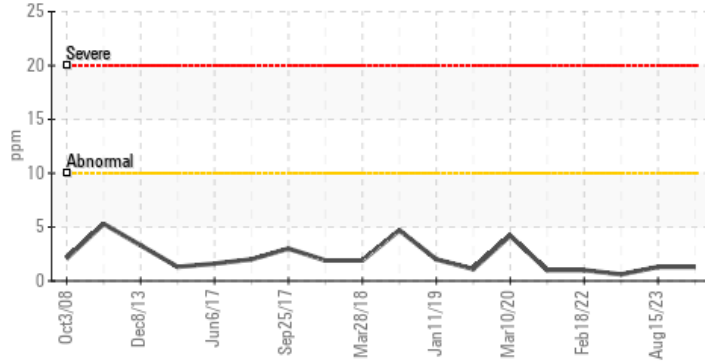
### Iron (ppm)



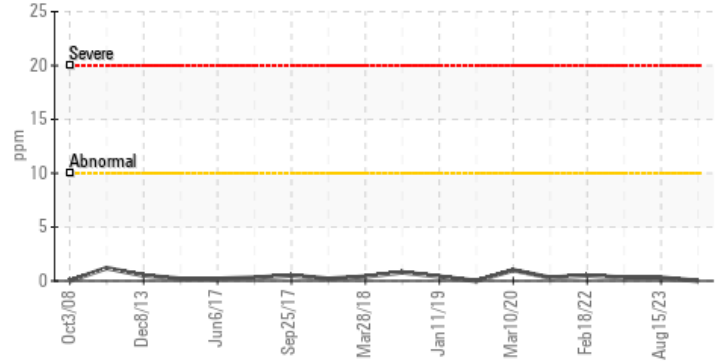
### Lead (ppm)



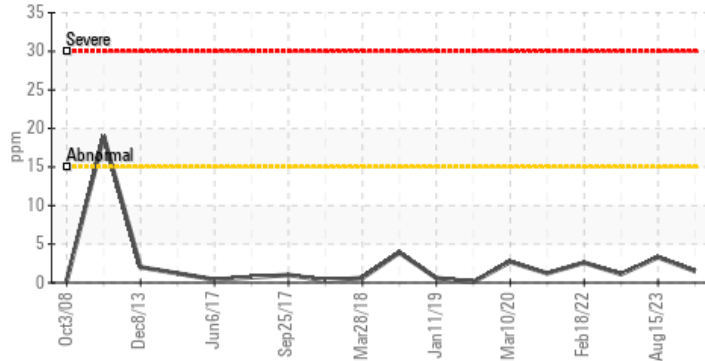
### Aluminum (ppm)



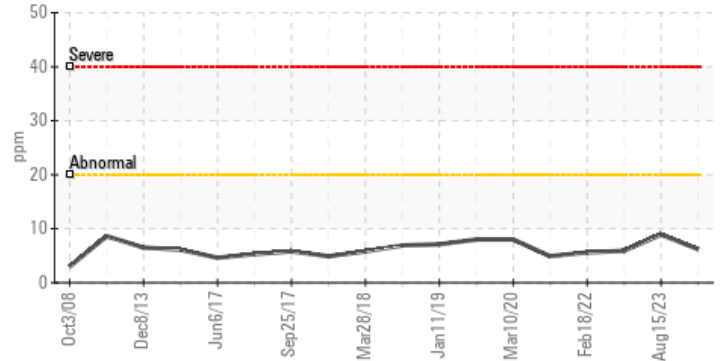
### Chromium (ppm)



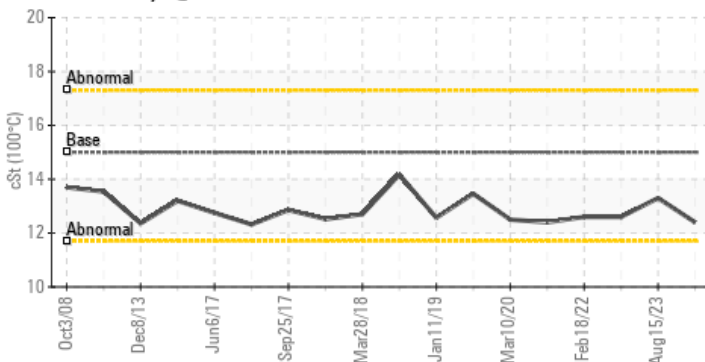
### Copper (ppm)



### Silicon (ppm)



### Viscosity @ 100°C



### Base Number

