



CONSTRUCTION EQUIPMENT

SW1022953 RENTAL VOLVO L110H 631554 - DIESEL ENGINE



Sample No: VCP414445
Oil Type: DIESEL ENGINE OIL SAE 15W40
Job No: SW1022953 RENTAL



SAMPLE INFORMATION

| | | | | |
|---------------|-------------|-----|-----|-----|
| Sample Number | VCP414445 | --- | --- | --- |
| Sample Date | 29 Aug 2023 | --- | --- | --- |
| Machine Hours | 6923 | --- | --- | --- |
| Oil Hours | 0 | --- | --- | --- |
| Oil Changed | Changed | --- | --- | --- |
| Sample Status | ABNORMAL | --- | --- | --- |

ARNOLD MACHINERY COMPANY
 4323 EAST WINSLOW AVENUE
 PHOENIX, AZ
 US 85040
 Contact: RANDY PRZEKURAT
 randyp@arnoldmachinery.com
 T:
 F: (602)414-1904



OIL CONDITION

| | | | | | |
|------------------|----------|--------|-----|-----|-----|
| Visc @ 100°C | cSt | █ 13.2 | --- | --- | --- |
| Base Number (BN) | mg KOH/g | █ 9.6 | --- | --- | --- |
| Oxidation (PA) | % | 79 | --- | --- | --- |



CONTAMINATION

| | | | | | |
|----------------|-----|-------|-----|-----|-----|
| Soot % | % | █ 0.6 | --- | --- | --- |
| Nitration (PA) | % | 73 | --- | --- | --- |
| Sulfation (PA) | % | 60 | --- | --- | --- |
| Glycol | % | NEG | --- | --- | --- |
| Fuel | % | <1.0 | --- | --- | --- |
| Silicon | ppm | █ 10 | --- | --- | --- |
| Sodium | ppm | █ 4 | --- | --- | --- |
| Potassium | ppm | █ <1 | --- | --- | --- |

Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. The aluminum level is abnormal. All other 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.



WEAR METALS

| | | | | | |
|------------|-----|------|-----|-----|-----|
| Iron | ppm | █ 26 | --- | --- | --- |
| Copper | ppm | █ 2 | --- | --- | --- |
| Lead | ppm | █ 0 | --- | --- | --- |
| Tin | ppm | █ <1 | --- | --- | --- |
| Aluminum | ppm | ▲ 58 | --- | --- | --- |
| Chromium | ppm | █ 2 | --- | --- | --- |
| Molybdenum | ppm | █ 52 | --- | --- | --- |
| Nickel | ppm | █ 0 | --- | --- | --- |
| Titanium | ppm | █ <1 | --- | --- | --- |
| Silver | ppm | █ 0 | --- | --- | --- |
| Manganese | ppm | █ <1 | --- | --- | --- |
| Vanadium | ppm | 0 | --- | --- | --- |



ADDITIVES

| | | | | | |
|------------|-----|--------|-----|-----|-----|
| Calcium | ppm | █ 1896 | --- | --- | --- |
| Magnesium | ppm | █ 553 | --- | --- | --- |
| Zinc | ppm | █ 1237 | --- | --- | --- |
| Phosphorus | ppm | █ 999 | --- | --- | --- |
| Barium | ppm | █ 0 | --- | --- | --- |
| Boron | ppm | █ 46 | --- | --- | --- |

Depot: VOLVO6174
Unique No: 10632446
Signed: Don Baldrige
Report Date: 06 Sep 2023



CONSTRUCTION EQUIPMENT

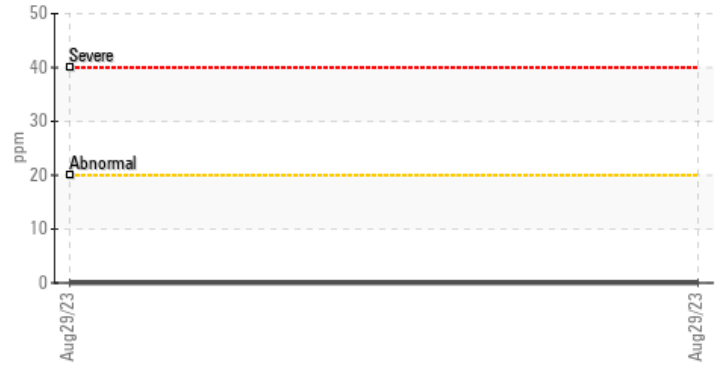


GRAPHS

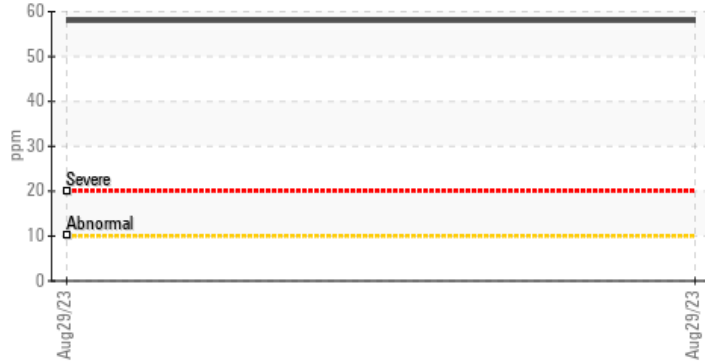
Iron (ppm)



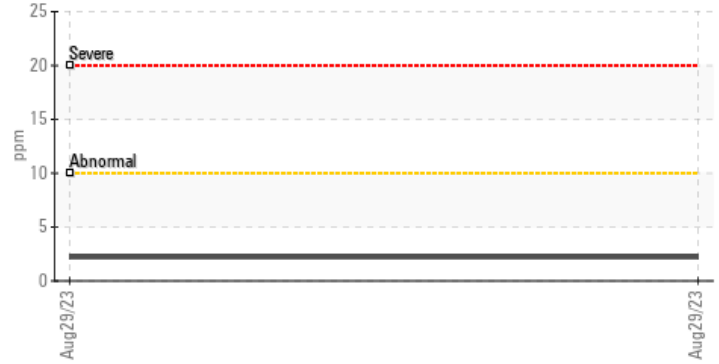
Lead (ppm)



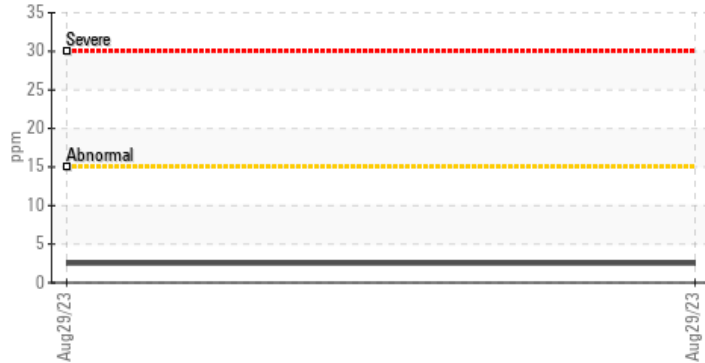
Aluminum (ppm)



Chromium (ppm)



Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number

