



CONSTRUCTION EQUIPMENT

SW1027019 WESTERN OR VOLVO 631989 - DIESEL ENGINE



Sample No: VCP441352
Oil Type: DIESEL ENGINE OIL SAE 15W40
Job No: SW1027019 WESTERN OR



SAMPLE INFORMATION

Sample Number	VCP441352	---	---	---
Sample Date	02 Dec 2023	---	---	---
Machine Hours	3001	---	---	---
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	█ 13.8	---	---	---
Base Number (BN)	mg KOH/g	█ 5.6	---	---	---
Oxidation (PA)	%	104	---	---	---

Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. We recommend an early resample to monitor this condition. Piston, ring and cylinder wear is indicated. 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 acceptable for the time in service.



CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	█ 1.2	---	---	---
Nitration (PA)	%	103	---	---	---
Sulfation (PA)	%	74	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	█ 18	---	---	---
Sodium	ppm	█ 6	---	---	---
Potassium	ppm	█ 4	---	---	---



WEAR METALS

Iron	ppm	▲ 110	---	---	---
Copper	ppm	█ 28	---	---	---
Lead	ppm	█ 9	---	---	---
Tin	ppm	█ 4	---	---	---
Aluminum	ppm	▲ 80	---	---	---
Chromium	ppm	█ 7	---	---	---
Molybdenum	ppm	█ 63	---	---	---
Nickel	ppm	█ <1	---	---	---
Titanium	ppm	█ <1	---	---	---
Silver	ppm	█ <1	---	---	---
Manganese	ppm	█ 3	---	---	---
Vanadium	ppm	0	---	---	---



ADDITIVES

Calcium	ppm	█ 1863	---	---	---
Magnesium	ppm	█ 436	---	---	---
Zinc	ppm	█ 1287	---	---	---
Phosphorus	ppm	█ 1016	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 36	---	---	---

Depot: VOLVO6174
Unique No: 10780127
Signed: Don Baldrige
Report Date: 13 Dec 2023



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GRAPHS

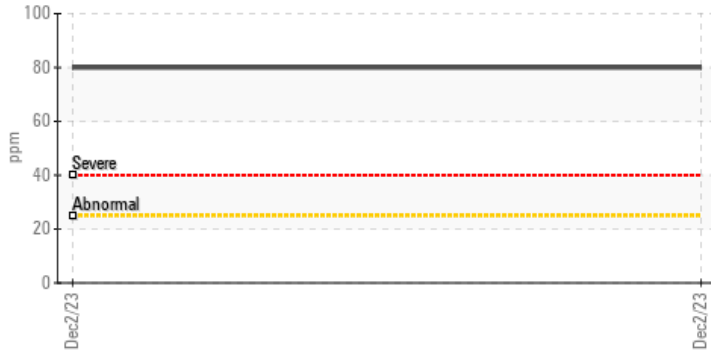
▲ Iron (ppm)



Lead (ppm)



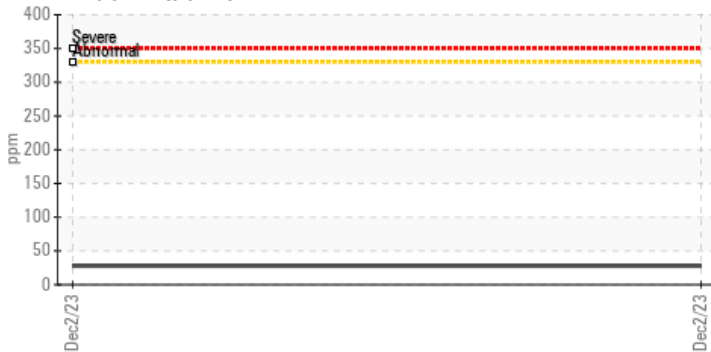
▲ Aluminum (ppm)



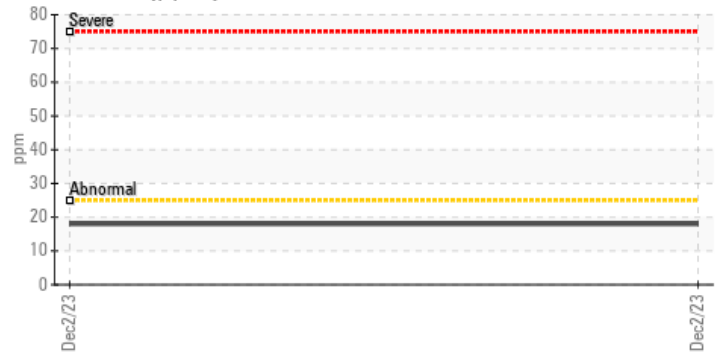
Chromium (ppm)



Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number

