



CONSTRUCTION EQUIPMENT

VINCI 392571 VOLVO EC950F 410078 - DIESEL ENGINE



Sample No: VCP394351
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 392571



SAMPLE INFORMATION

Sample Number	VCP394351	VCP347436	---	---
Sample Date	21 Feb 2024	14 Sep 2022	---	---
Machine Hours	3908	88	---	---
Oil Hours	0	0	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	ABNORMAL	ABNORMAL	---	---

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OIL CONDITION

Visc @ 100°C	cSt	13.5	▲ 10.8	---	---
Oxidation (PA)	%	85	22	---	---



CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	0.7	0	---	---
Nitration (PA)	%	88	27	---	---
Sulfation (PA)	%	72	34	---	---
Glycol	%	0.0	0.0	---	---
Fuel	%	<1.0	0.5	---	---
Silicon	ppm	▲ 26	23	---	---
Sodium	ppm	▲ 946	4	---	---
Potassium	ppm	27	2	---	---



WEAR METALS

Iron	ppm	13	23	---	---
Copper	ppm	3	8	---	---
Lead	ppm	<1	2	---	---
Tin	ppm	<1	3	---	---
Aluminum	ppm	5	3	---	---
Chromium	ppm	<1	<1	---	---
Molybdenum	ppm	74	80	---	---
Nickel	ppm	2	2	---	---
Titanium	ppm	0	<1	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	0	2	---	---
Vanadium	ppm	0	0	---	---



ADDITIVES

Calcium	ppm	1596	2151	---	---
Magnesium	ppm	556	63	---	---
Zinc	ppm	1068	1122	---	---
Phosphorus	ppm	904	1061	---	---
Barium	ppm	0	0	---	---
Boron	ppm	27	60	---	---

Diagnosis

Check for low coolant level. We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. The oil change at the time of sampling has been noted. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. All component wear rates are normal. Water treatment chemicals present, indicating slow coolant leak. There is a moderate concentration of dirt present in the oil. Test for glycol is negative. The condition of the oil is acceptable for the time in service (see recommendation). The oil is no longer serviceable due to the presence of contaminants.

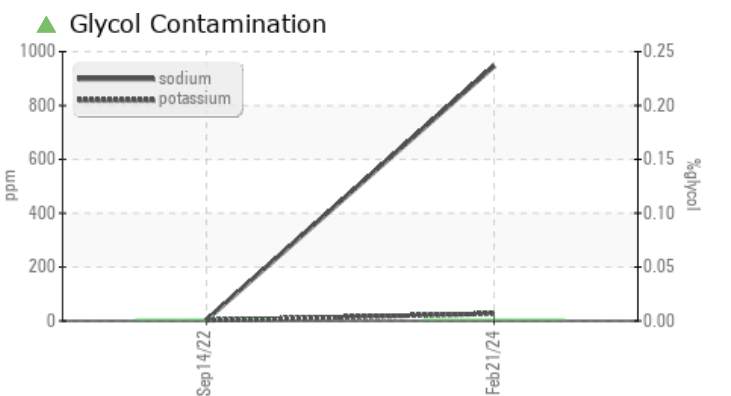
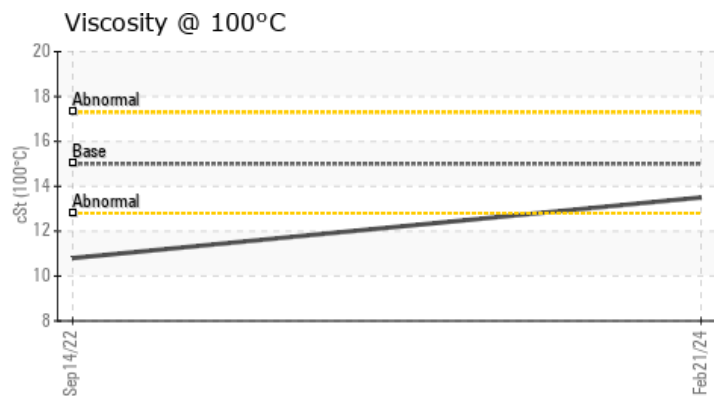
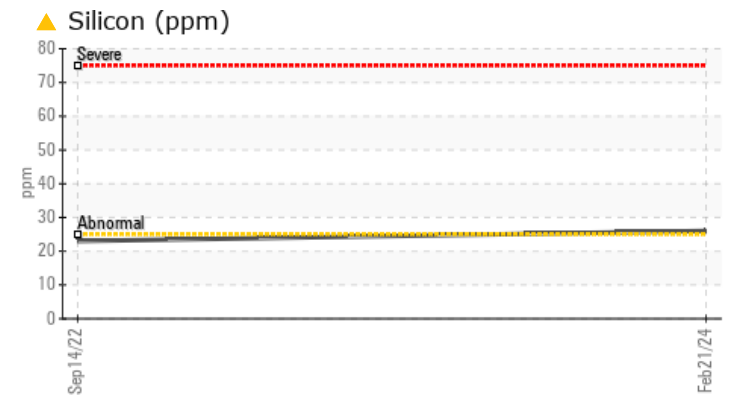
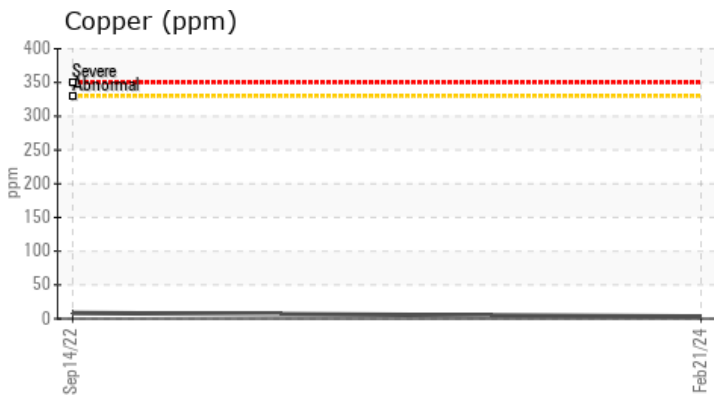
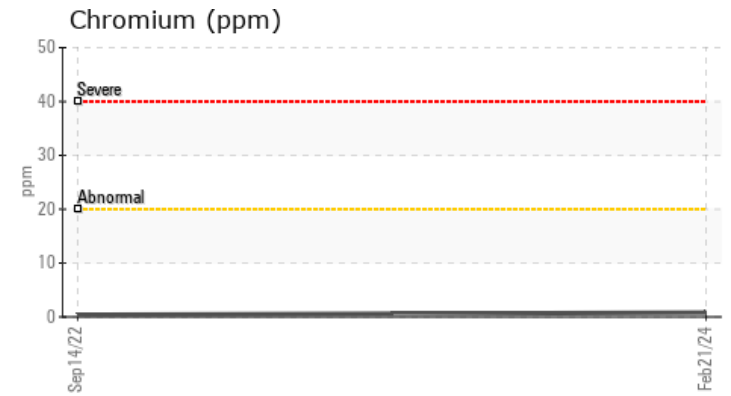
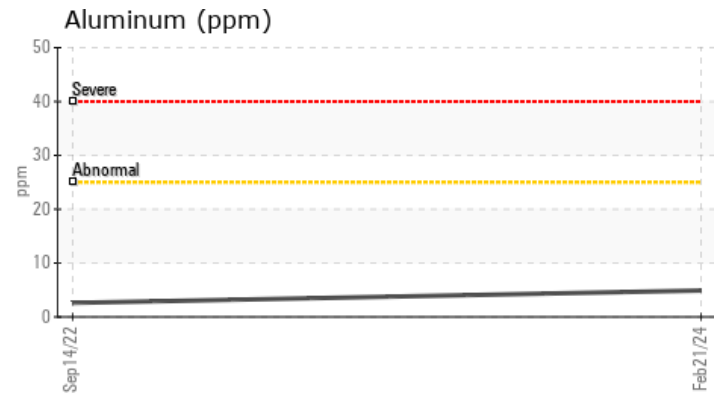
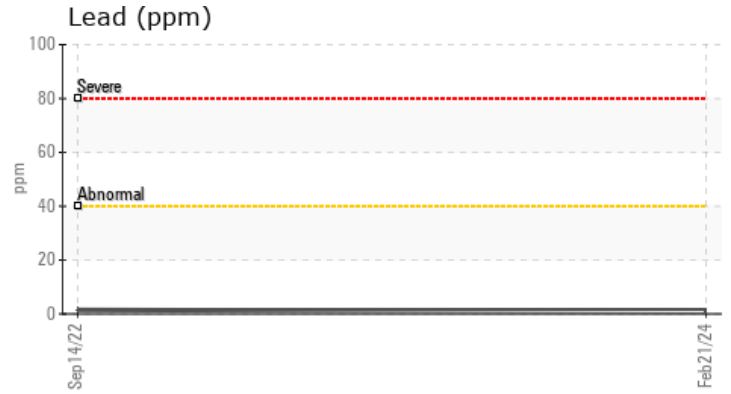
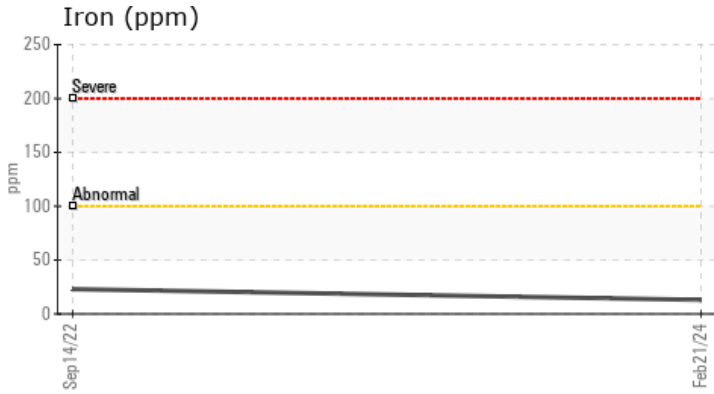
Depot: VOLVO3909
Unique No: 5734475
Signed: Kevin Marson
Report Date: 23 Feb 2024



CONSTRUCTION EQUIPMENT



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CONSTRUCTION EQUIPMENT

VINCI 392571 VOLVO EC950F 410078 - HYDRAULIC SYSTEM



Sample No: VCP449378
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No: 392571



SAMPLE INFORMATION

Sample Number	VCP449378	---	---	---
Sample Date	09 Feb 2024	---	---	---
Machine Hours	3908	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

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OIL CONDITION

Visc @ 40°C	cSt	█ 39.4	---	---	---
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CONTAMINATION

Water	%	█ 0.003	---	---	---
Particles >4µm		█ 2288	---	---	---
Particles >6µm		█ 544	---	---	---
Particles >14µm		█ 47	---	---	---
ISO 4406:1999 (c)		18/16/13	---	---	---
Silicon	ppm	█ 3	---	---	---
Sodium	ppm	█ <1	---	---	---
Potassium	ppm	█ <1	---	---	---

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	█ 6	---	---	---
Copper	ppm	█ 9	---	---	---
Lead	ppm	█ <1	---	---	---
Tin	ppm	█ 0	---	---	---
Aluminum	ppm	█ <1	---	---	---
Chromium	ppm	█ 0	---	---	---
Molybdenum	ppm	█ 0	---	---	---
Nickel	ppm	█ 0	---	---	---
Titanium	ppm	█ 0	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ 0	---	---	---
Vanadium	ppm	█ 0	---	---	---



ADDITIVES

Calcium	ppm	█ 78	---	---	---
Magnesium	ppm	█ <1	---	---	---
Zinc	ppm	█ 470	---	---	---
Phosphorus	ppm	█ 410	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 0	---	---	---

Depot: VOLVO3909
Unique No: 5734545
Signed: Wes Davis
Report Date: 23 Feb 2024

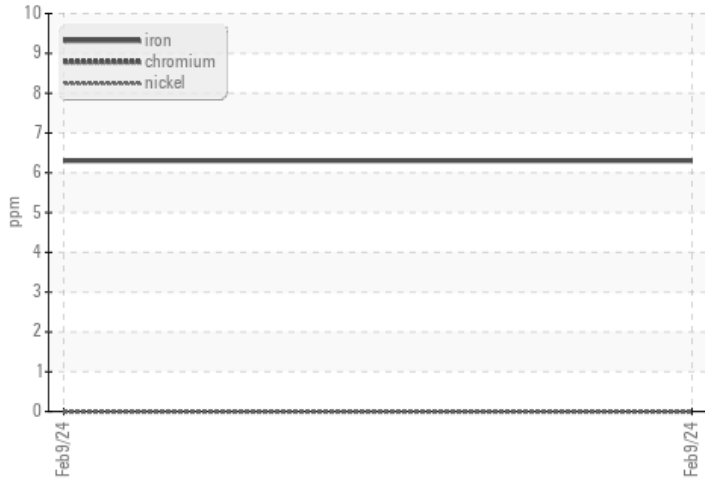


CONSTRUCTION EQUIPMENT

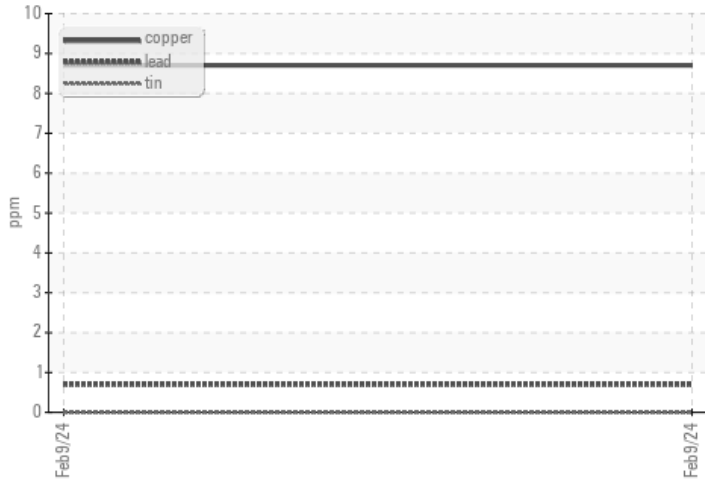


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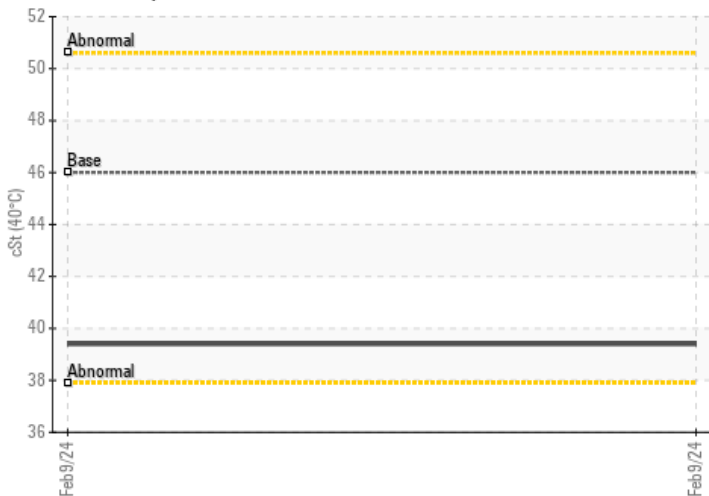
Ferrous Alloys



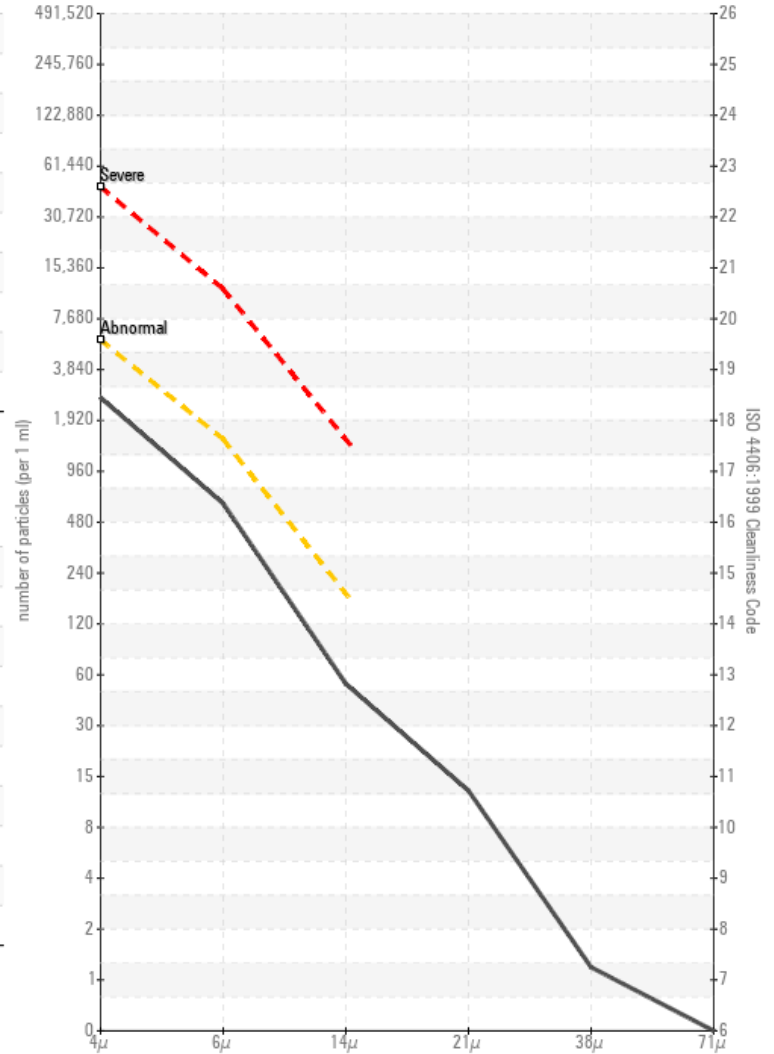
Non-ferrous Metals



Viscosity @ 40°C



Particle Count





CONSTRUCTION EQUIPMENT

VINCI 392571 VOLVO EC950F 410078 - FRONT LEFT FINAL DRIVE



Sample No: VCP449385
Oil Type: VOLVO PREMIUM GEAR OIL 80W-90 GL-5
Job No: 392571



SAMPLE INFORMATION

Sample Number	VCP449385	---	---	---
Sample Date	09 Feb 2024	---	---	---
Machine Hours	3908	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

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OIL CONDITION

Visc @ 40°C	cSt	█ 151	---	---	---
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CONTAMINATION

Water	%	NEG	---	---	---
Silicon	ppm	█ 34	---	---	---
Sodium	ppm	█ 1	---	---	---
Potassium	ppm	█ 3	---	---	---



WEAR METALS

Iron	ppm	█ 224	---	---	---
Copper	ppm	█ <1	---	---	---
Lead	ppm	█ 0	---	---	---
Tin	ppm	█ 0	---	---	---
Aluminum	ppm	█ 9	---	---	---
Chromium	ppm	█ 3	---	---	---
Molybdenum	ppm	█ 0	---	---	---
Nickel	ppm	█ <1	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	█ 2	---	---	---
Vanadium	ppm	0	---	---	---



ADDITIVES

Calcium	ppm	█ 14	---	---	---
Magnesium	ppm	█ 3	---	---	---
Zinc	ppm	11	---	---	---
Phosphorus	ppm	1768	---	---	---
Barium	ppm	█ 10	---	---	---
Boron	ppm	█ 81	---	---	---

Diagnosis

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

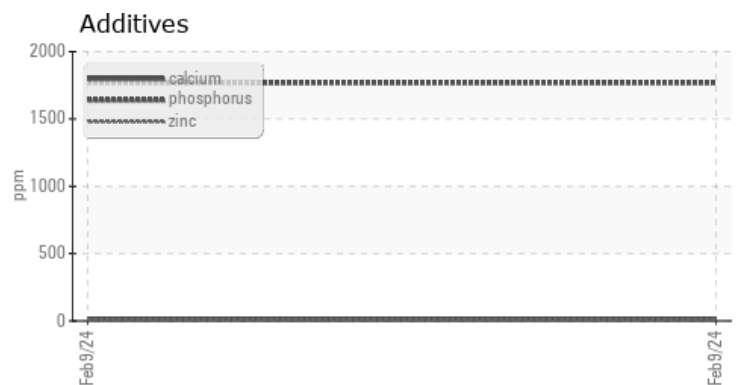
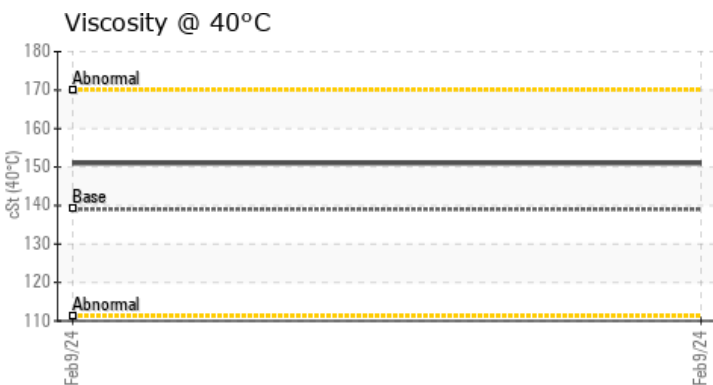
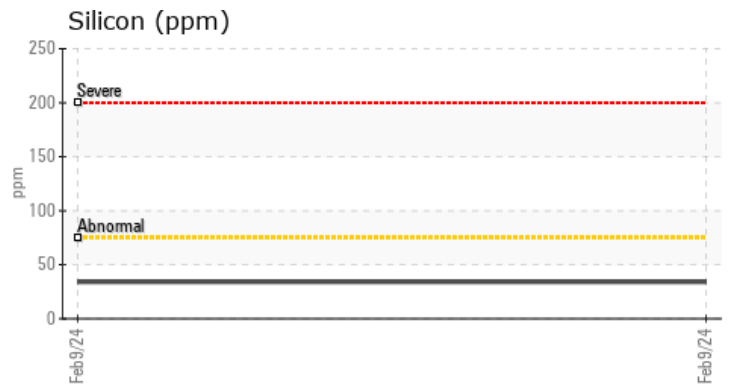
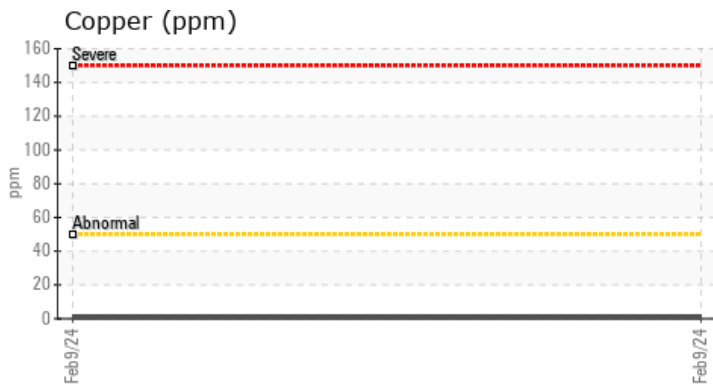
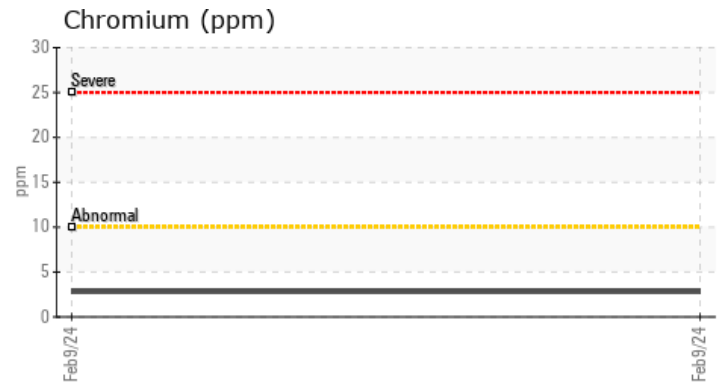
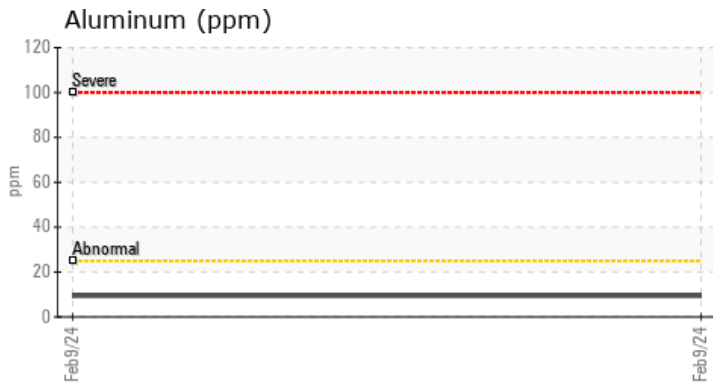
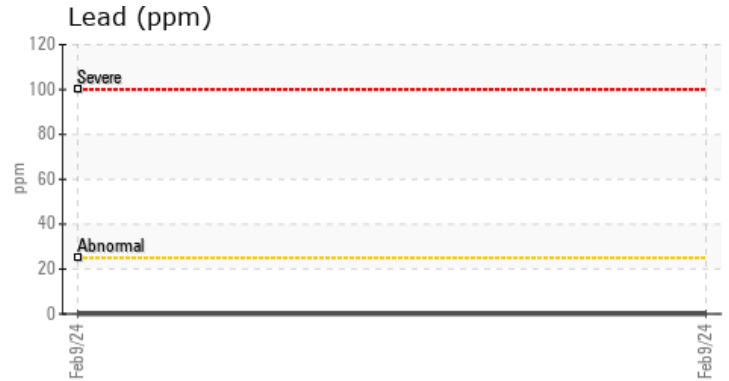
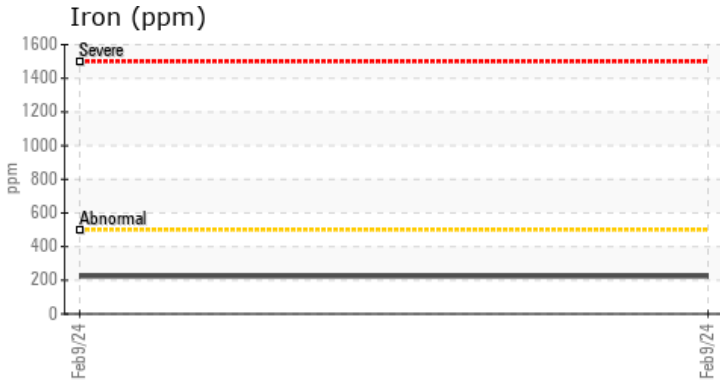
Depot: VOLVO3909
Unique No: 5734601
Signed: Wes Davis
Report Date: 22 Feb 2024



CONSTRUCTION EQUIPMENT



GRAPHS





CONSTRUCTION EQUIPMENT

VINCI 392571 VOLVO EC950F 410078 - FRONT RIGHT FINAL DRIVE



Sample No: VCP449376
Oil Type: VOLVO PREMIUM GEAR OIL 80W-90 GL-5
Job No: 392571



SAMPLE INFORMATION

Sample Number	VCP449376	---	---	---
Sample Date	09 Feb 2024	---	---	---
Machine Hours	3908	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

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OIL CONDITION

Visc @ 40°C	cSt	█ 141	---	---	---
-------------	-----	-------	-----	-----	-----



CONTAMINATION

Water	%	NEG	---	---	---
Silicon	ppm	█ 59	---	---	---
Sodium	ppm	█ 2	---	---	---
Potassium	ppm	█ 6	---	---	---

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 condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	█ 309	---	---	---
Copper	ppm	█ 1	---	---	---
Lead	ppm	█ <1	---	---	---
Tin	ppm	█ 0	---	---	---
Aluminum	ppm	█ 16	---	---	---
Chromium	ppm	█ 4	---	---	---
Molybdenum	ppm	█ 0	---	---	---
Nickel	ppm	█ <1	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	█ 3	---	---	---
Vanadium	ppm	0	---	---	---



ADDITIVES

Calcium	ppm	█ 22	---	---	---
Magnesium	ppm	█ 4	---	---	---
Zinc	ppm	█ 22	---	---	---
Phosphorus	ppm	█ 1714	---	---	---
Barium	ppm	█ 10	---	---	---
Boron	ppm	█ 58	---	---	---

Depot: VOLVO3909
Unique No: 5734600
Signed: Wes Davis
Report Date: 22 Feb 2024



CONSTRUCTION EQUIPMENT



GRAPHS

