



# CONSTRUCTION EQUIPMENT

VINCI 392569 VOLVO EC480EL 314955 - DIESEL ENGINE



**Sample No:** VCP392860  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 392569



## SAMPLE INFORMATION

Sample Number	VCP392860	---	---	---
Sample Date	26 Jan 2024	---	---	---
Machine Hours	3985	---	---	---
Oil Hours	500	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

### STRONGCO EQUIPMENT--CALGARY

7923 54TH STREET SE  
 CALGARY, AB  
 CA T2C 4R7  
 Contact: Tracey Lewin  
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## OIL CONDITION

Visc @ 100°C	cSt	█ 12.3	---	---	---
Oxidation (PA)	%	█ 88	---	---	---

## CONTAMINATION

Water	%	█ NEG	---	---	---
Soot %	%	█ 0	---	---	---
Nitration (PA)	%	█ 78	---	---	---
Sulfation (PA)	%	█ 65	---	---	---
Glycol	%	█ NEG	---	---	---
Fuel	%	█ 1.3	---	---	---
Silicon	ppm	█ 13	---	---	---
Sodium	ppm	█ 2	---	---	---
Potassium	ppm	█ <1	---	---	---

### Diagnosis

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected in the oil. The condition of the oil is acceptable for the time in service.

## WEAR METALS

Iron	ppm	█ 9	---	---	---
Copper	ppm	█ 4	---	---	---
Lead	ppm	█ <1	---	---	---
Tin	ppm	█ <1	---	---	---
Aluminum	ppm	█ 2	---	---	---
Chromium	ppm	█ <1	---	---	---
Molybdenum	ppm	█ 42	---	---	---
Nickel	ppm	█ <1	---	---	---
Titanium	ppm	█ 0	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ 0	---	---	---
Vanadium	ppm	█ 0	---	---	---

## ADDITIVES

Calcium	ppm	█ 1702	---	---	---
Magnesium	ppm	█ 554	---	---	---
Zinc	ppm	█ 1100	---	---	---
Phosphorus	ppm	█ 946	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 29	---	---	---

**Depot:** VOLVO3909  
**Unique No:** 5733705  
**Signed:** Wes Davis  
**Report Date:** 22 Feb 2024

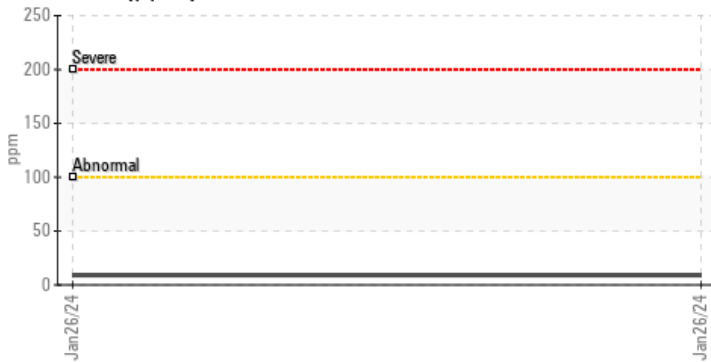


# CONSTRUCTION EQUIPMENT

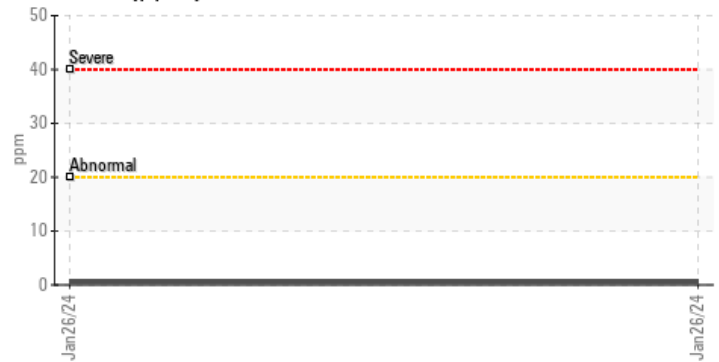


## GRAPHS

### Iron (ppm)



### Lead (ppm)



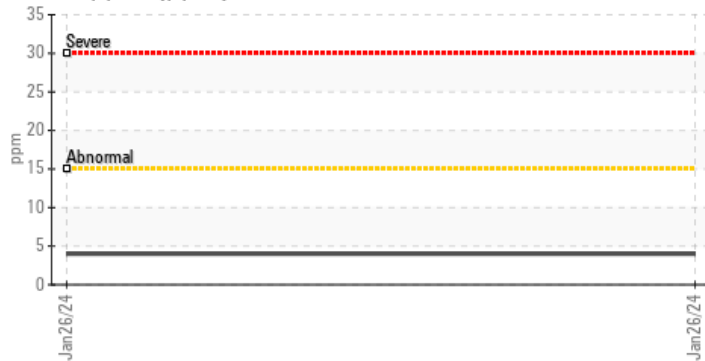
### Aluminum (ppm)



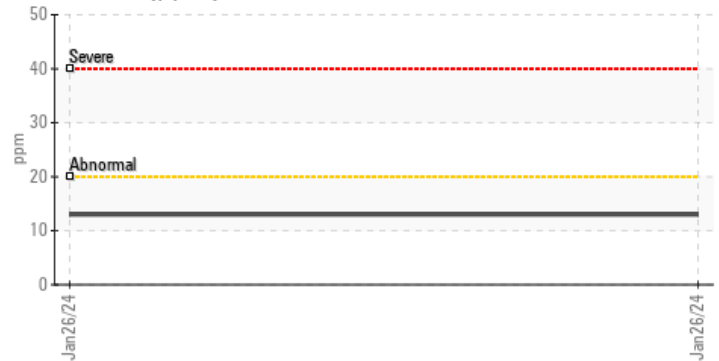
### Chromium (ppm)



### Copper (ppm)



### Silicon (ppm)



### Viscosity @ 100°C



### Soot %





# CONSTRUCTION EQUIPMENT

VINCI 392569 VOLVO EC480EL 314955 - HYDRAULIC SYSTEM



**Sample No:** VCP392872  
**Oil Type:** VOLVO SUPER HYDRAULIC OIL 46  
**Job No:** 392569



## SAMPLE INFORMATION

Sample Number	VCP392872	---	---	---
Sample Date	26 Jan 2024	---	---	---
Machine Hours	3985	---	---	---
Oil Hours	2000	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

### STRONGCO EQUIPMENT--CALGARY

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## OIL CONDITION

Visc @ 40°C	cSt	▲ 37.3	---	---	---
-------------	-----	--------	-----	-----	-----



## CONTAMINATION

Water	%	NEG	---	---	---
Particles >4µm		■ 9526	---	---	---
Particles >6µm		■ 800	---	---	---
Particles >14µm		■ 46	---	---	---
ISO 4406:1999 (c)		20/17/13	---	---	---
Silicon	ppm	■ 4	---	---	---
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 system and fluid cleanliness is acceptable. Viscosity of sample indicates oil is within ISO 32 range, advise investigate. The condition of the oil is acceptable for the time in service.



## WEAR METALS

Iron	ppm	■ 5	---	---	---
Copper	ppm	■ 16	---	---	---
Lead	ppm	■ <1	---	---	---
Tin	ppm	■ <1	---	---	---
Aluminum	ppm	■ <1	---	---	---
Chromium	ppm	■ 4	---	---	---
Molybdenum	ppm	■ 0	---	---	---
Nickel	ppm	■ 0	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	■ 0	---	---	---
Vanadium	ppm	0	---	---	---



## ADDITIVES

Calcium	ppm	■ 85	---	---	---
Magnesium	ppm	■ 1	---	---	---
Zinc	ppm	■ 361	---	---	---
Phosphorus	ppm	■ 399	---	---	---
Barium	ppm	■ 0	---	---	---
Boron	ppm	■ 0	---	---	---

**Depot:** VOLVO3909  
**Unique No:** 5733794  
**Signed:** Kevin Marson  
**Report Date:** 23 Feb 2024

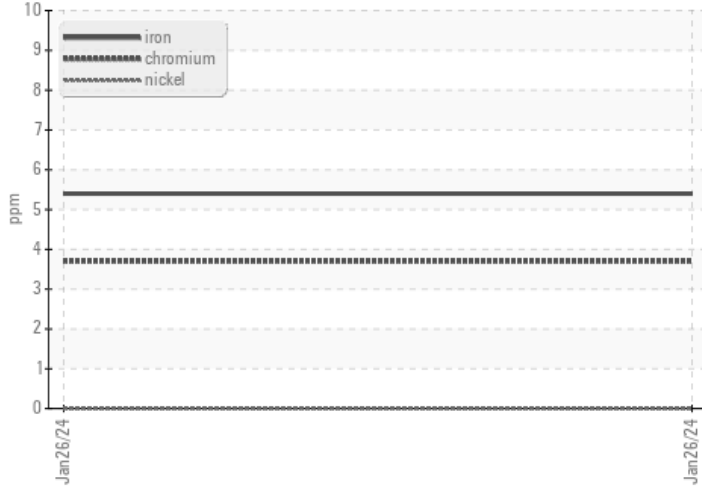


# CONSTRUCTION EQUIPMENT

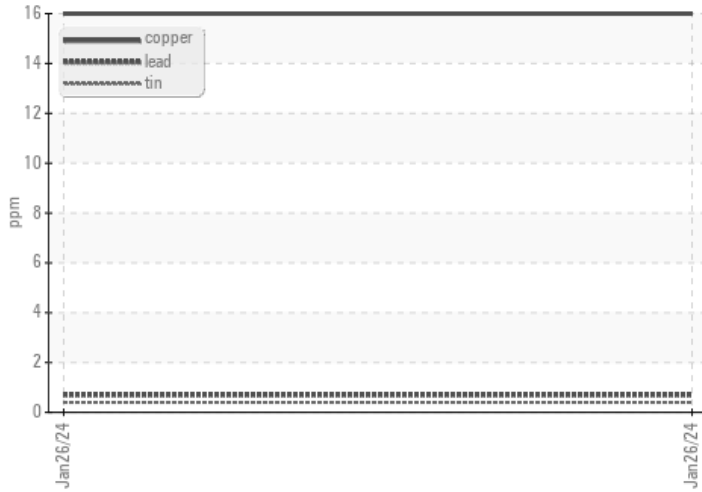


## GRAPHS

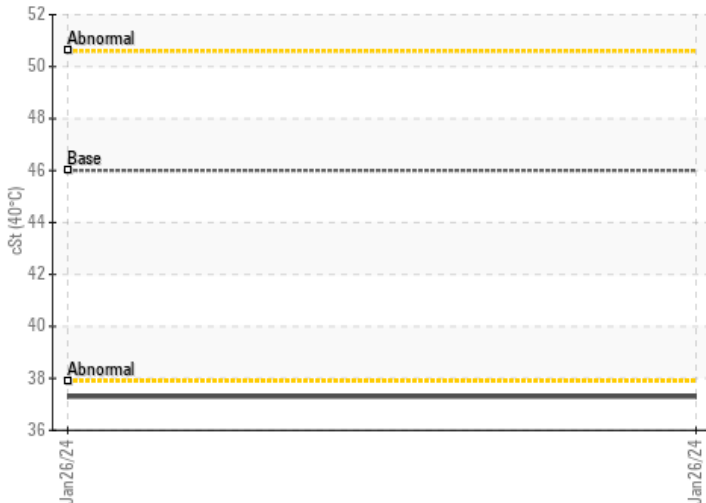
### Ferrous Alloys



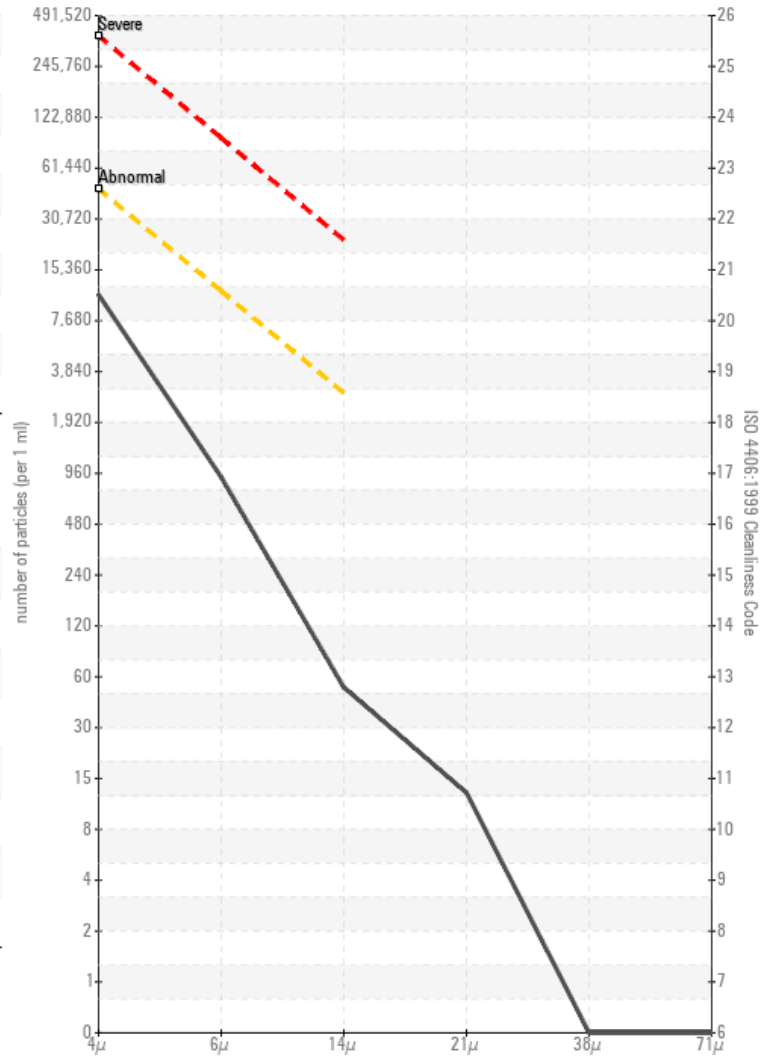
### Non-ferrous Metals



### Viscosity @ 40°C



### Particle Count





# CONSTRUCTION EQUIPMENT

VINCI 392569 VOLVO EC480EL 314955 - SWING DRIVE



**Sample No:** VCP394362  
**Oil Type:** VOLVO PREMIUM GEAR OIL 80W-90 GL-5  
**Job No:** 392569



## SAMPLE INFORMATION

Sample Number	VCP394362	---	---	---
Sample Date	26 Jan 2024	---	---	---
Machine Hours	3985	---	---	---
Oil Hours	1000	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

### STRONGCO EQUIPMENT--CALGARY

7923 54TH STREET SE  
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## OIL CONDITION

Visc @ 40°C	cSt	█ 124	---	---	---
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## CONTAMINATION

Water	%	NEG	---	---	---
Silicon	ppm	█ 12	---	---	---
Sodium	ppm	█ <1	---	---	---
Potassium	ppm	█ <1	---	---	---

### 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	█ 91	---	---	---
Copper	ppm	█ 31	---	---	---
Lead	ppm	█ 1	---	---	---
Tin	ppm	█ 0	---	---	---
Aluminum	ppm	█ 2	---	---	---
Chromium	ppm	█ 1	---	---	---
Molybdenum	ppm	█ 0	---	---	---
Nickel	ppm	█ 0	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	█ 2	---	---	---
Vanadium	ppm	0	---	---	---

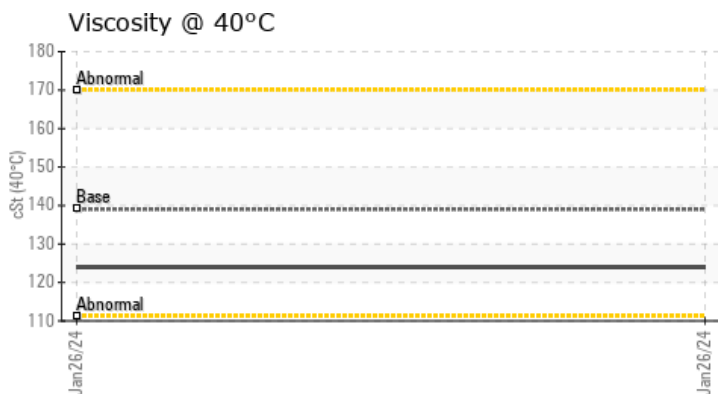
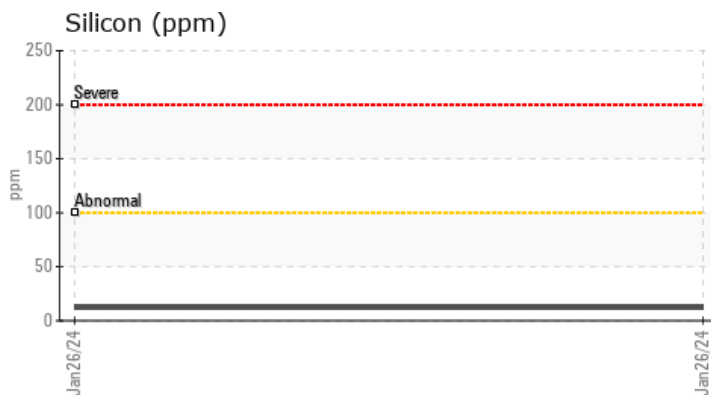
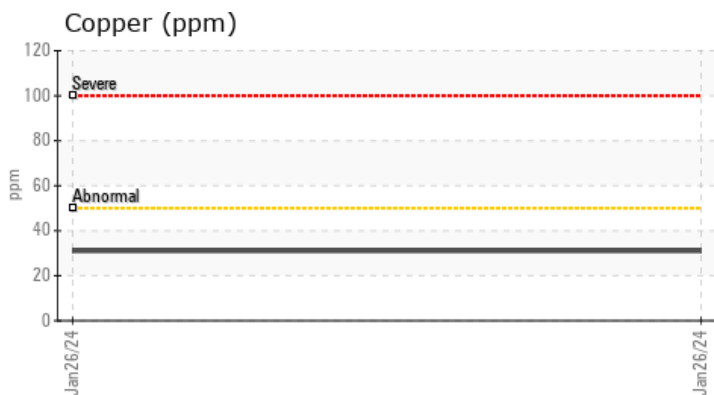
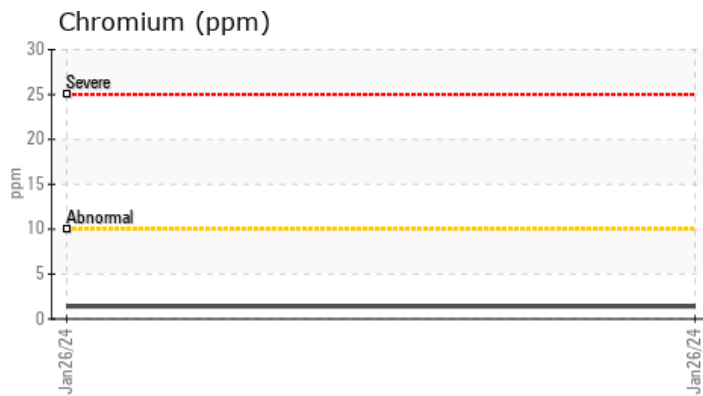
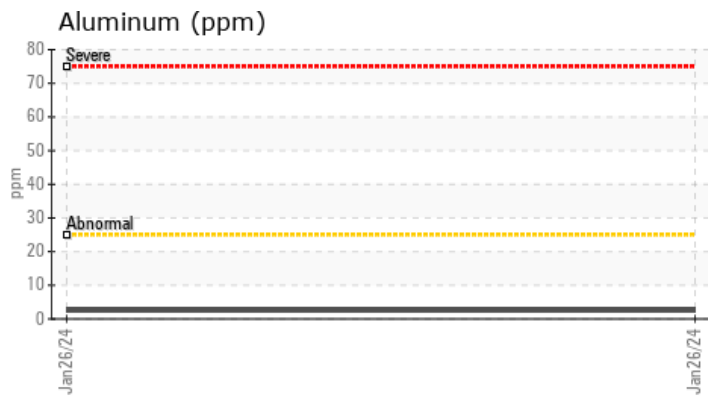
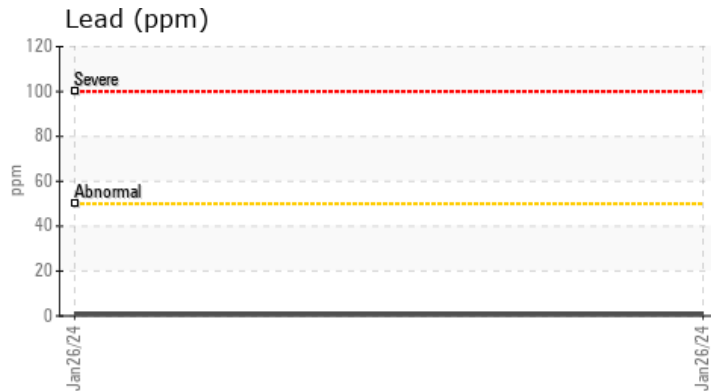
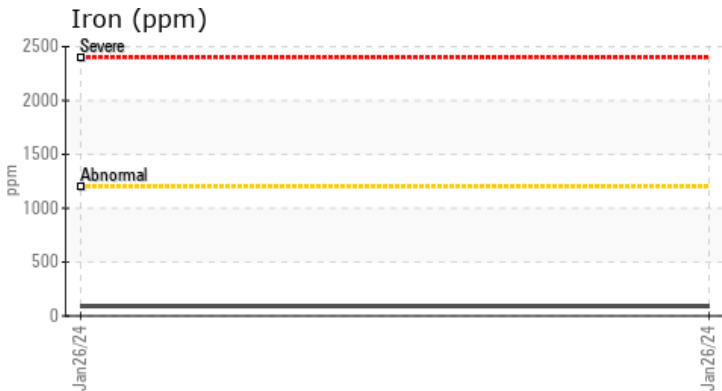


## ADDITIVES

Calcium	ppm	█ 11	---	---	---
Magnesium	ppm	█ 3	---	---	---
Zinc	ppm	█ 34	---	---	---
Phosphorus	ppm	█ 915	---	---	---
Barium	ppm	█ <1	---	---	---
Boron	ppm	█ 152	---	---	---

**Depot:** VOLVO3909  
**Unique No:** 5733893  
**Signed:** Wes Davis  
**Report Date:** 20 Feb 2024

**VOLVO** **GRAPHS**





# CONSTRUCTION EQUIPMENT

VINCI 392569 VOLVO EC480EL 314955 - FRONT LEFT FINAL DRIVE



**Sample No:** VCP394317  
**Oil Type:** VOLVO PREMIUM GEAR OIL 80W-90 GL-5  
**Job No:** 392569



## SAMPLE INFORMATION

Sample Number	VCP394317	---	---	---
Sample Date	26 Jan 2024	---	---	---
Machine Hours	3985	---	---	---
Oil Hours	1000	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

### STRONGCO EQUIPMENT--CALGARY

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F: (403)216-1016



## OIL CONDITION

Visc @ 40°C	cSt	█ 153	---	---	---
-------------	-----	-------	-----	-----	-----



## CONTAMINATION

Water	%	NEG	---	---	---
Silicon	ppm	█ 297	---	---	---
Sodium	ppm	█ 8	---	---	---
Potassium	ppm	█ 17	---	---	---

### 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

PQ		█ 431	---	---	---
Iron	ppm	█ 2124	---	---	---
Copper	ppm	█ 2	---	---	---
Lead	ppm	█ 0	---	---	---
Tin	ppm	█ <1	---	---	---
Aluminum	ppm	█ 66	---	---	---
Chromium	ppm	█ 19	---	---	---
Molybdenum	ppm	█ 1	---	---	---
Nickel	ppm	█ <1	---	---	---
Titanium	ppm	█ 3	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ 17	---	---	---
Vanadium	ppm	█ 0	---	---	---



## ADDITIVES

Calcium	ppm	█ 51	---	---	---
Magnesium	ppm	█ 18	---	---	---
Zinc	ppm	█ 15	---	---	---
Phosphorus	ppm	█ 924	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 123	---	---	---

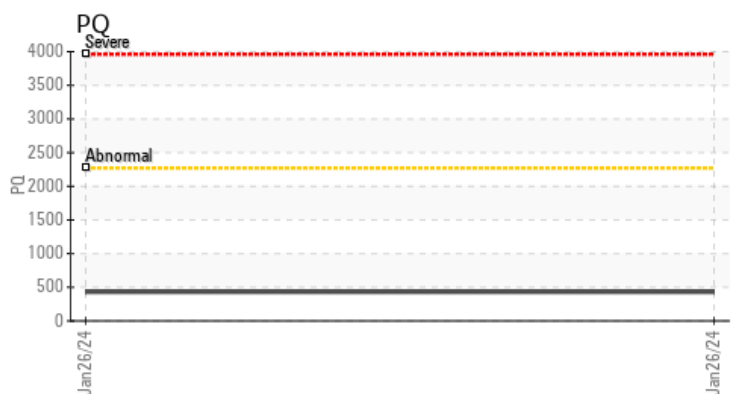
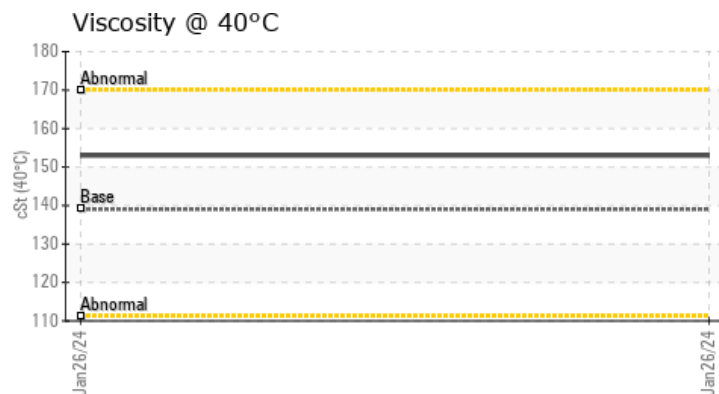
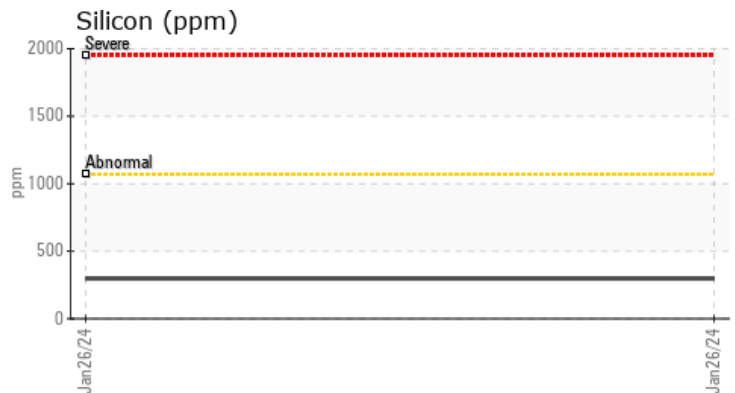
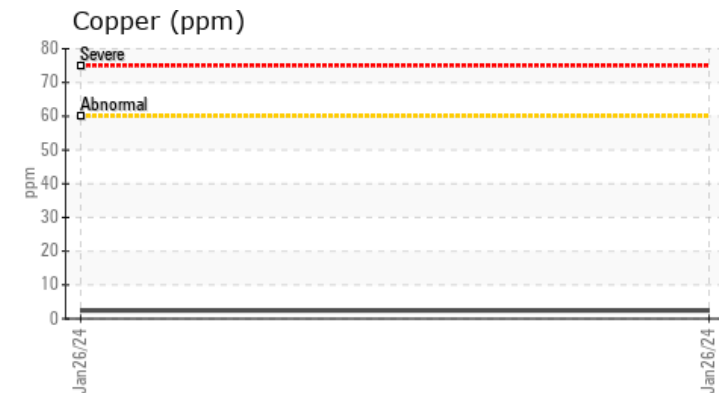
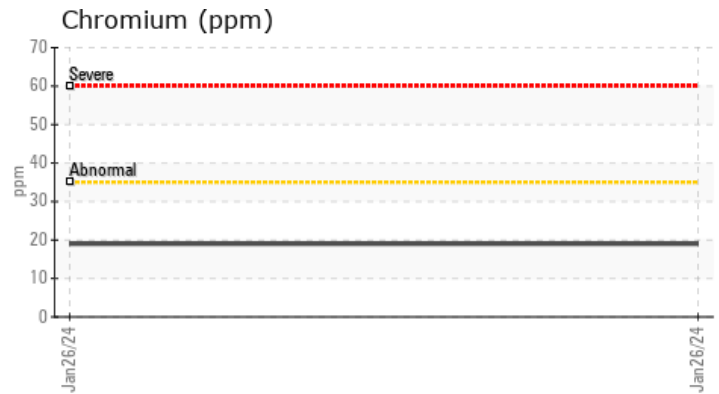
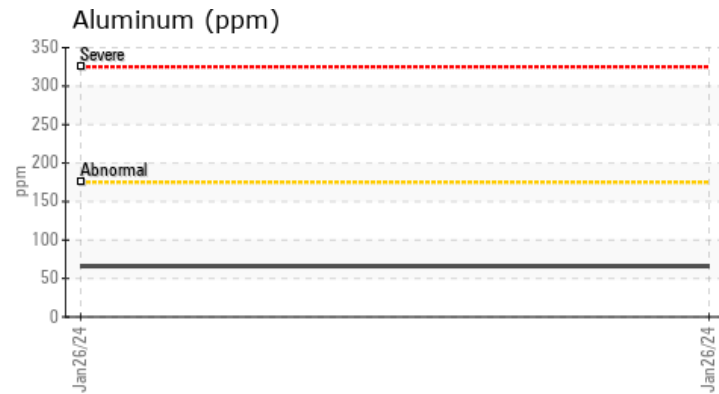
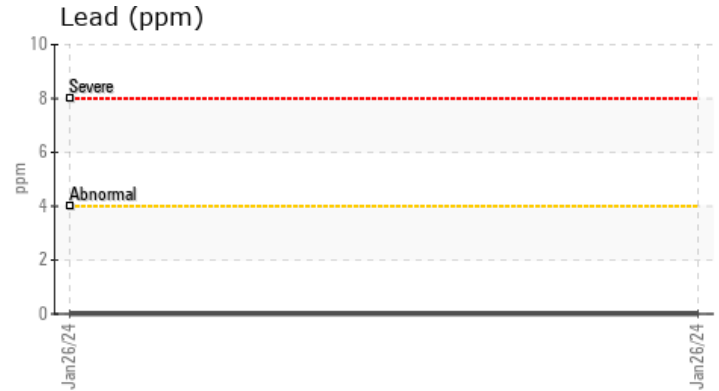
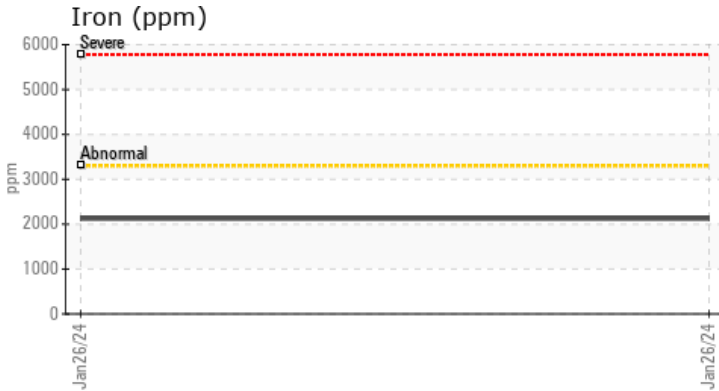
**Depot:** VOLVO3909  
**Unique No:** 5733895  
**Signed:** Kevin Marson  
**Report Date:** 21 Feb 2024



# CONSTRUCTION EQUIPMENT



## GRAPHS







# CONSTRUCTION EQUIPMENT

VINCI 392569 VOLVO EC480EL 314955 - FRONT RIGHT FINAL DRIVE



**Sample No:** VCP380884  
**Oil Type:** VOLVO PREMIUM GEAR OIL 80W-90 GL-5  
**Job No:** 392569



**STRONGCO EQUIPMENT--CALGARY**  
 7923 54TH STREET SE  
 CALGARY, AB  
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 F: (403)216-1016



## SAMPLE INFORMATION

Sample Number	VCP380884	---	---	---
Sample Date	26 Jan 2024	---	---	---
Machine Hours	3985	---	---	---
Oil Hours	1000	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---



## OIL CONDITION

Visc @ 40°C	cSt	█ 135	---	---	---
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## CONTAMINATION

Water	%	NEG	---	---	---
Silicon	ppm	█ 12	---	---	---
Sodium	ppm	█ <1	---	---	---
Potassium	ppm	█ <1	---	---	---



## WEAR METALS

Iron	ppm	█ 131	---	---	---
Copper	ppm	█ 23	---	---	---
Lead	ppm	█ <1	---	---	---
Tin	ppm	█ 0	---	---	---
Aluminum	ppm	█ 2	---	---	---
Chromium	ppm	█ 2	---	---	---
Molybdenum	ppm	█ 0	---	---	---
Nickel	ppm	█ <1	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ 2	---	---	---
Vanadium	ppm	0	---	---	---



## ADDITIVES

Calcium	ppm	█ 7	---	---	---
Magnesium	ppm	█ 1	---	---	---
Zinc	ppm	█ 22	---	---	---
Phosphorus	ppm	█ 930	---	---	---
Barium	ppm	█ <1	---	---	---
Boron	ppm	█ 140	---	---	---

## 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.

**Depot:** VOLVO3909  
**Unique No:** 5733894  
**Signed:** Wes Davis  
**Report Date:** 20 Feb 2024



# CONSTRUCTION EQUIPMENT



## GRAPHS

