



# CONSTRUCTION EQUIPMENT

SWA380994-1 ALTER SENNEBOGEN 825 825.0.2552 - DIESEL ENGINE



**Sample No:** VCP384905  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** SWA380994-1 ALTER



## SAMPLE INFORMATION

Sample Number	VCP384905	---	---	---
Sample Date	11 Oct 2023	---	---	---
Machine Hours	9930	---	---	---
Oil Hours	500	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

**ALTA EQUIPMENT COMPANY**  
 1035 WYLIE DRIVE  
 BLOOMINGTON, IL  
 US 61705  
 Contact: JUSTIN PERRY  
 justin.perry@altg.com  
 T: (309)533-9285  
 F:

## OIL CONDITION

Visc @ 100°C	cSt	█ 14.0	---	---	---
Base Number (BN)	mg KOH/g	█ 9.5	---	---	---
Oxidation (PA)	%	67	---	---	---

## 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

Soot %	%	█ 0.3	---	---	---
Nitration (PA)	%	67	---	---	---
Sulfation (PA)	%	60	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	█ 6	---	---	---
Sodium	ppm	█ 1	---	---	---
Potassium	ppm	█ <1	---	---	---

## WEAR METALS

Iron	ppm	█ 11	---	---	---
Copper	ppm	█ 0	---	---	---
Lead	ppm	█ 0	---	---	---
Tin	ppm	█ 0	---	---	---
Aluminum	ppm	█ 3	---	---	---
Chromium	ppm	█ 0	---	---	---
Molybdenum	ppm	█ 257	---	---	---
Nickel	ppm	█ 0	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ <1	---	---	---
Vanadium	ppm	0	---	---	---

## ADDITIVES

Calcium	ppm	█ 1562	---	---	---
Magnesium	ppm	█ 846	---	---	---
Zinc	ppm	█ 1158	---	---	---
Phosphorus	ppm	█ 941	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 265	---	---	---

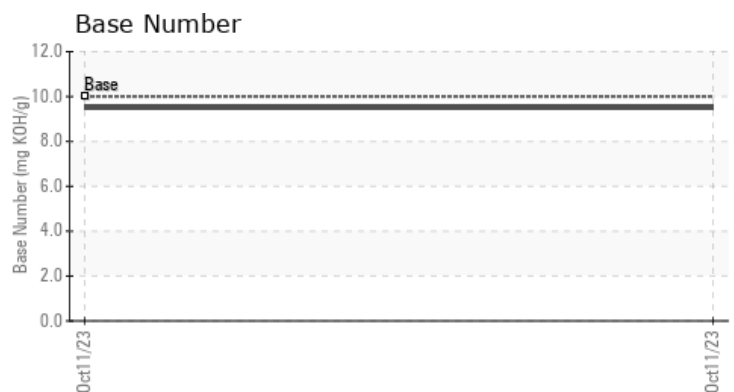
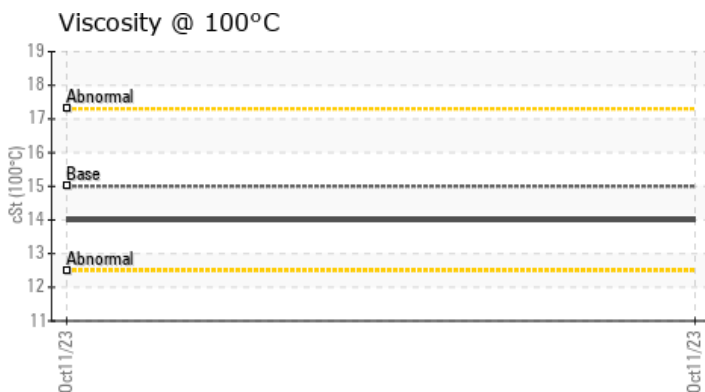
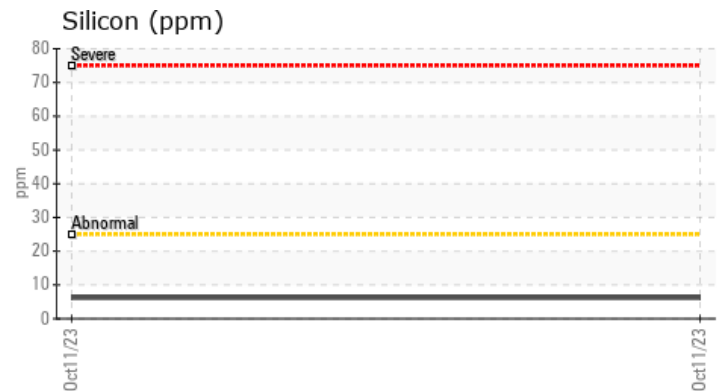
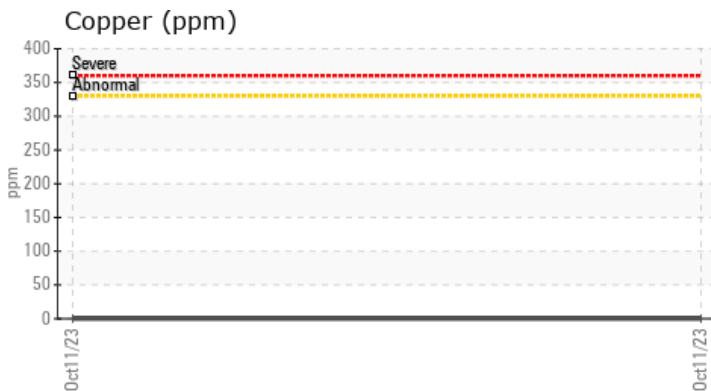
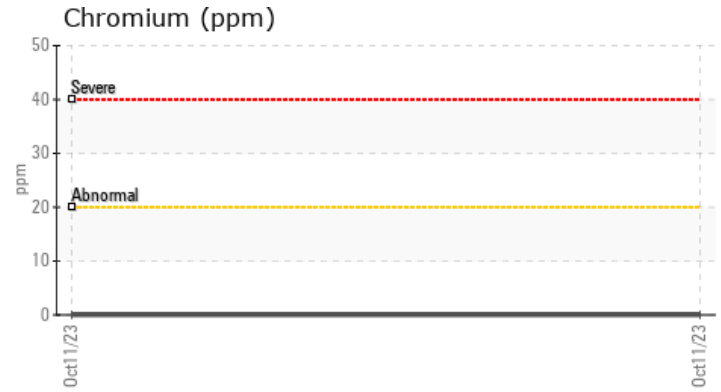
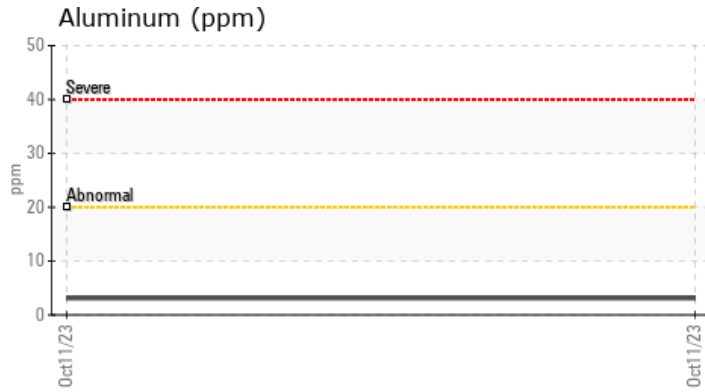
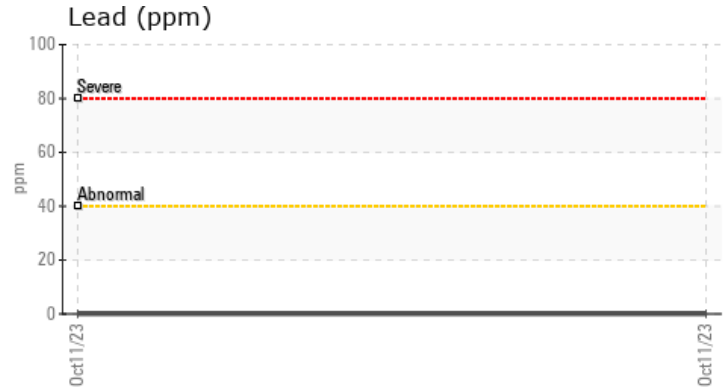
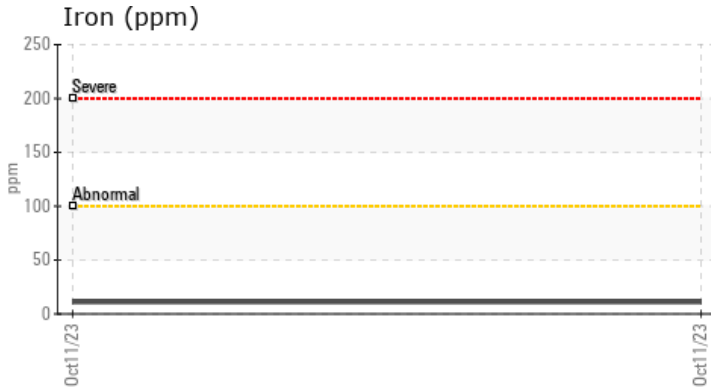
**Depot:** VOLVO5054  
**Unique No:** 10699583  
**Signed:** Jonathan Hester  
**Report Date:** 20 Oct 2023



# CONSTRUCTION EQUIPMENT



## GRAPHS





# CONSTRUCTION EQUIPMENT

380994-1 ALTER SENNEBOGEN 825 825.0.2552 - TRANSMISSION



**Sample No:** VCP082875  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 380994-1 ALTER



## SAMPLE INFORMATION

Sample Number	VCP082875	---	---	---
Sample Date	11 Oct 2023	---	---	---
Machine Hours	9930	---	---	---
Oil Hours	2000	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

### ALTA EQUIPMENT COMPANY

1035 WYLIE DRIVE  
 BLOOMINGTON, IL  
 US 61705

Contact: JUSTIN PERRY  
 justin.perry@altg.com  
 T: (309)533-9285  
 F:



## OIL CONDITION

Visc @ 40°C	cSt	86.5	---	---	---
-------------	-----	------	-----	-----	-----



## CONTAMINATION

Water	%	NEG	---	---	---
Silicon	ppm	4	---	---	---
Sodium	ppm	3	---	---	---
Potassium	ppm	0	---	---	---



## WEAR METALS

Iron	ppm	18	---	---	---
Copper	ppm	33	---	---	---
Lead	ppm	0	---	---	---
Tin	ppm	<1	---	---	---
Aluminum	ppm	1	---	---	---
Chromium	ppm	0	---	---	---
Molybdenum	ppm	49	---	---	---
Nickel	ppm	0	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	4	---	---	---
Vanadium	ppm	0	---	---	---



## ADDITIVES

Calcium	ppm	891	---	---	---
Magnesium	ppm	563	---	---	---
Zinc	ppm	779	---	---	---
Phosphorus	ppm	873	---	---	---
Barium	ppm	1	---	---	---
Boron	ppm	82	---	---	---

## Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the fluid. Confirm oil type. The condition of the fluid is acceptable for the time in service.

**Depot:** VOLVO5054  
**Unique No:** 10699952  
**Signed:** Sean Felton  
**Report Date:** 19 Oct 2023



# CONSTRUCTION EQUIPMENT



## GRAPHS

### Iron (ppm)



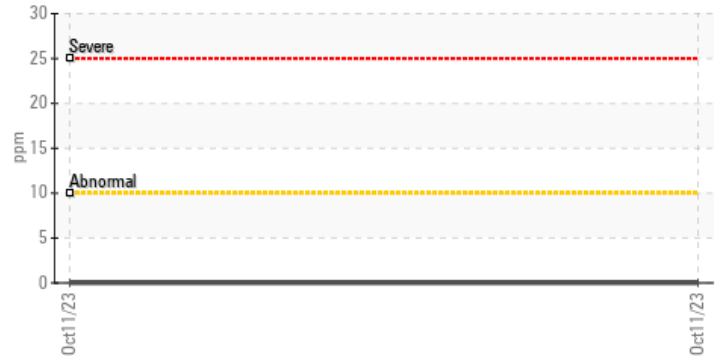
### Lead (ppm)



### Aluminum (ppm)



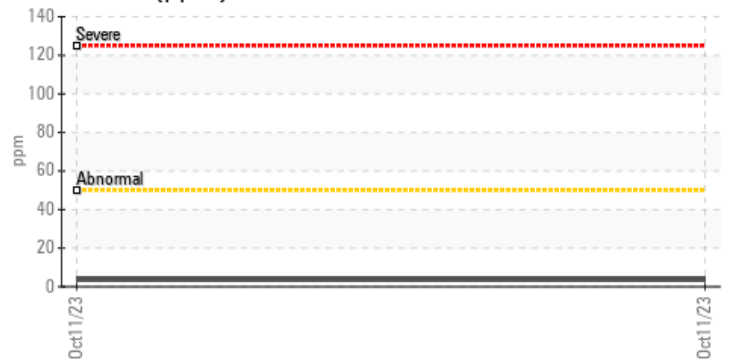
### Chromium (ppm)



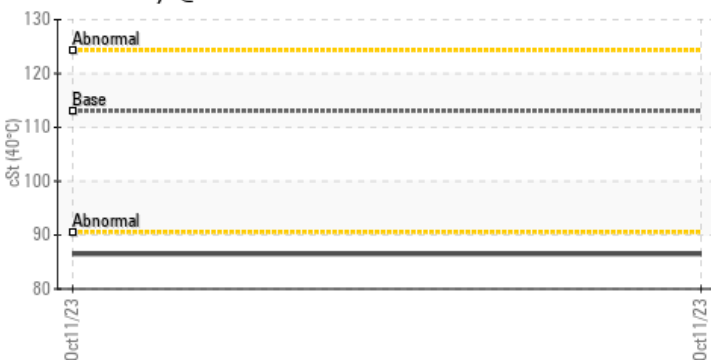
### Copper (ppm)



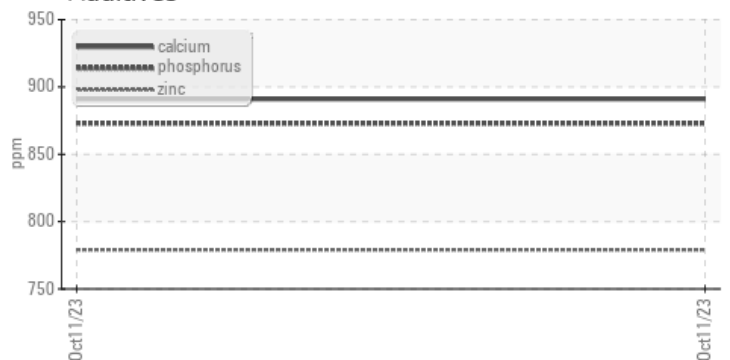
### Silicon (ppm)



### Viscosity @ 40°C



### Additives





# CONSTRUCTION EQUIPMENT

## 380994-1 ALTER SENNEBOGEN 825 825.0.2552 - HYDRAULIC SYSTEM



**Sample No:** VCP082785  
**Oil Type:** SENNEBOGEN/MAYBE SHELL ISO 46  
**Job No:** 380994-1 ALTER



### SAMPLE INFORMATION

Sample Number	VCP082785	---	---	---
Sample Date	11 Oct 2023	---	---	---
Machine Hours	9930	---	---	---
Oil Hours	9930	---	---	---
Oil Changed	Not Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

### ALTA EQUIPMENT COMPANY

1035 WYLIE DRIVE  
 BLOOMINGTON, IL  
 US 61705

Contact: JUSTIN PERRY  
 justin.perry@altg.com  
 T: (309)533-9285

F:



### OIL CONDITION

Visc @ 40°C	cSt	■ 42.4	---	---	---
Acid Number (AN)	mg KOH/g	■ 0.50	---	---	---



### CONTAMINATION

Particles >4µm		▲ 25520	---	---	---
Particles >6µm		▲ 8282	---	---	---
Particles >14µm		▲ 531	---	---	---
ISO 4406:1999 (c)		22/20/16	---	---	---
Silicon	ppm	■ 2	---	---	---
Sodium	ppm	■ 8	---	---	---
Potassium	ppm	■ 0	---	---	---

### Diagnosis

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The chromium level is abnormal. All other component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.



### WEAR METALS

Iron	ppm	■ 15	---	---	---
Copper	ppm	■ 2	---	---	---
Lead	ppm	■ 0	---	---	---
Tin	ppm	■ 0	---	---	---
Aluminum	ppm	■ 0	---	---	---
Chromium	ppm	▲ 15	---	---	---
Molybdenum	ppm	2	---	---	---
Nickel	ppm	■ 0	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	0	---	---	---
Vanadium	ppm	0	---	---	---



### ADDITIVES

Calcium	ppm	291	---	---	---
Magnesium	ppm	27	---	---	---
Zinc	ppm	505	---	---	---
Phosphorus	ppm	409	---	---	---
Barium	ppm	0	---	---	---
Boron	ppm	3	---	---	---

**Depot:** VOLVO5054  
**Unique No:** 10699623  
**Signed:** Angela Borella  
**Report Date:** 19 Oct 2023

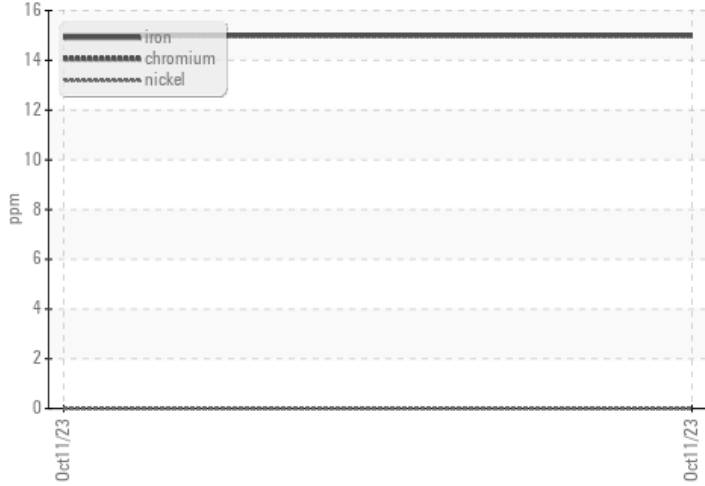


# CONSTRUCTION EQUIPMENT

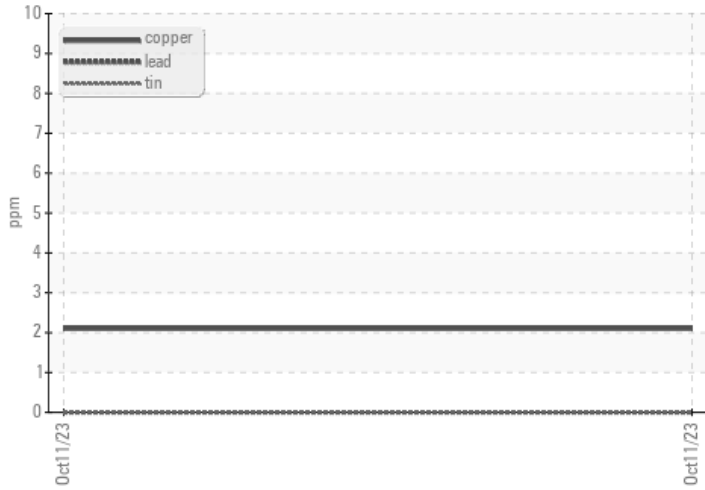


## GRAPHS

### ▲ Ferrous Alloys



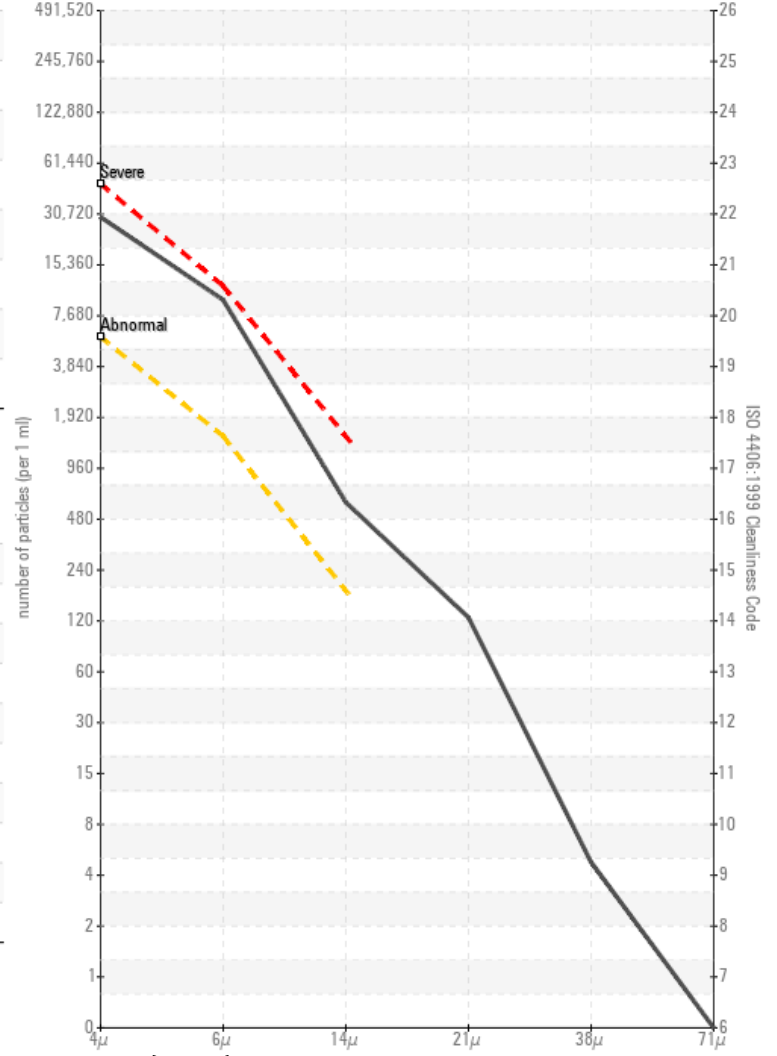
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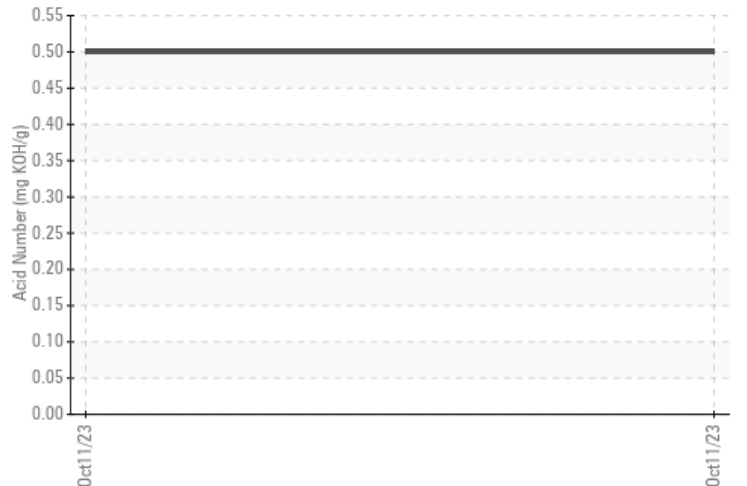
### Viscosity @ 40°C



### ▲ Particle Count



### Acid Number



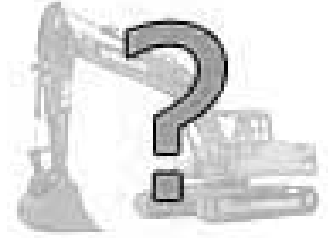


# CONSTRUCTION EQUIPMENT

380994-1 SENNEBOGEN 825 825.0.2552 - FRONT AXLE



**Sample No:** VCP319005  
**Oil Type:** VOLVO PREMIUM GEAR OIL 80W-90 GL-5  
**Job No:** 380994-1



## SAMPLE INFORMATION

Sample Number	VCP319005	---	---	---
Sample Date	11 Oct 2023	---	---	---
Machine Hours	9930	---	---	---
Oil Hours	2000	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

### ALTA EQUIPMENT COMPANY

1035 WYLIE DRIVE  
 BLOOMINGTON, IL  
 US 61705  
 Contact: MIKE MARTIN  
 mike.martin@altaequipment.com  
 T:  
 F:



## OIL CONDITION

Visc @ 40°C	cSt	█ 149	---	---	---
-------------	-----	-------	-----	-----	-----



## CONTAMINATION

Silicon	ppm	█ 1	---	---	---
Sodium	ppm	█ 0	---	---	---
Potassium	ppm	█ 0	---	---	---



## WEAR METALS

Iron	ppm	█ 49	---	---	---
Copper	ppm	█ 0	---	---	---
Lead	ppm	█ 0	---	---	---
Tin	ppm	█ 0	---	---	---
Aluminum	ppm	█ <1	---	---	---
Chromium	ppm	█ 0	---	---	---
Molybdenum	ppm	█ 0	---	---	---
Nickel	ppm	█ 0	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	<1	---	---	---
Manganese	ppm	█ 1	---	---	---
Vanadium	ppm	0	---	---	---



## ADDITIVES

Calcium	ppm	█ 48	---	---	---
Magnesium	ppm	█ 4	---	---	---
Zinc	ppm	█ 56	---	---	---
Phosphorus	ppm	█ 1571	---	---	---
Barium	ppm	█ 1	---	---	---
Boron	ppm	█ 55	---	---	---

### 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.

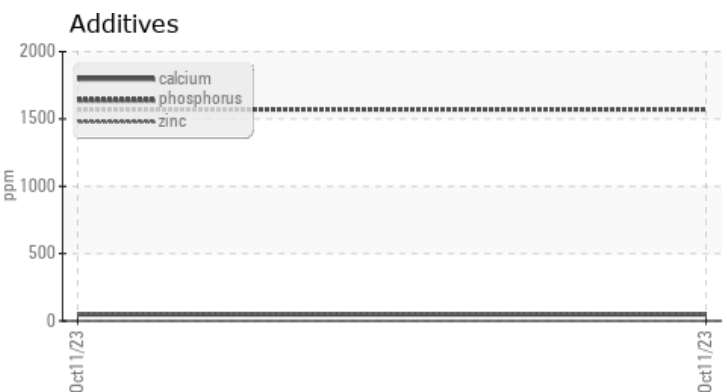
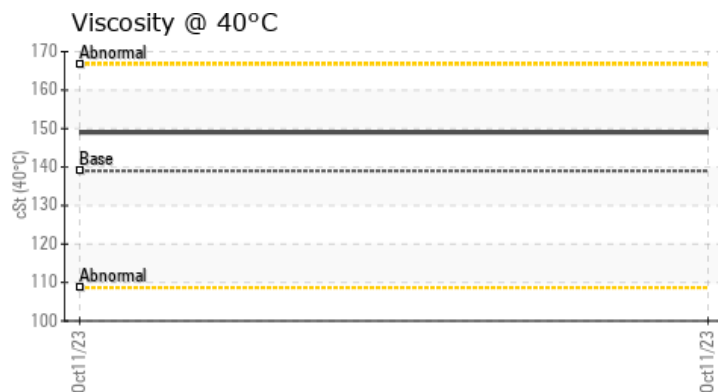
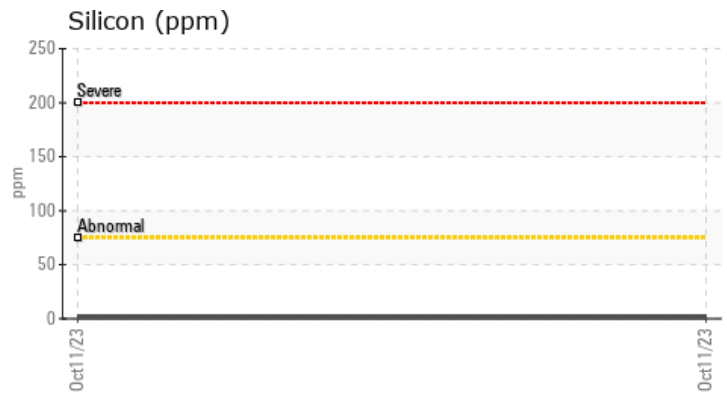
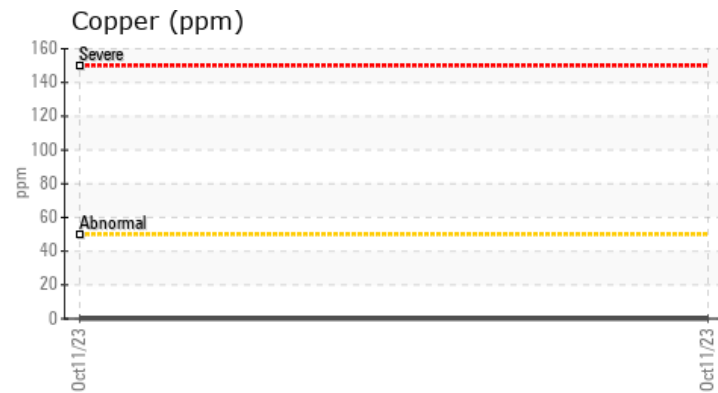
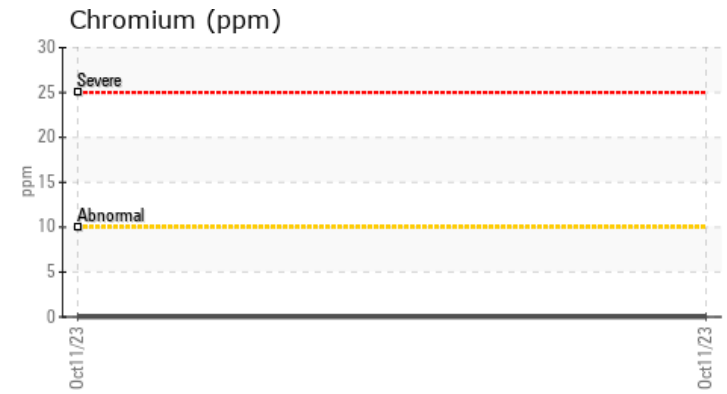
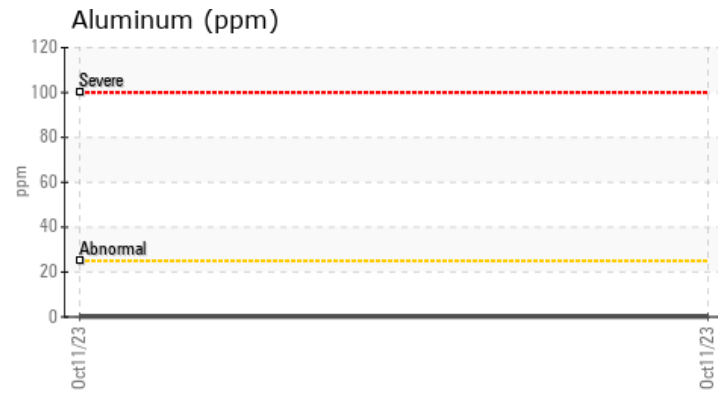
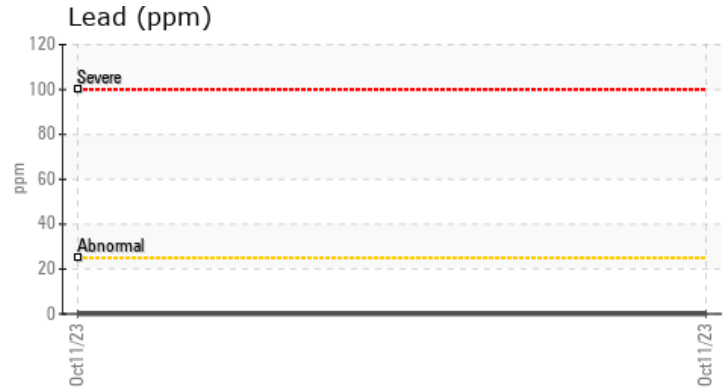
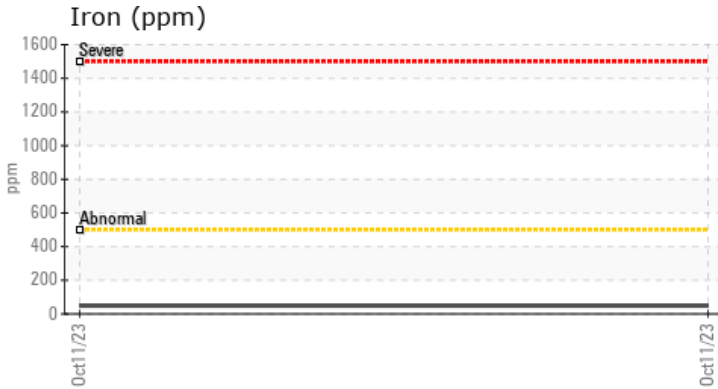
**Depot:** VOLVO5054  
**Unique No:** 10699924  
**Signed:** Sean Felton  
**Report Date:** 19 Oct 2023



# CONSTRUCTION EQUIPMENT



## GRAPHS







# CONSTRUCTION EQUIPMENT

380994-1 SENNEBOGEN 825 825.0.2552 - FRONT RIGHT FINAL DRIVE



**Sample No:** VCP384914  
**Oil Type:** VOLVO PREMIUM GEAR OIL 80W-90 GL-5  
**Job No:** 380994-1



## SAMPLE INFORMATION

Sample Number	VCP384914	---	---	---
Sample Date	11 Oct 2023	---	---	---
Machine Hours	9930	---	---	---
Oil Hours	2000	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

### ALTA EQUIPMENT COMPANY

1035 WYLIE DRIVE  
 BLOOMINGTON, IL  
 US 61705

Contact: JUSTIN PERRY  
 justin.perry@altg.com  
 T: (309)533-9285  
 F:



## OIL CONDITION

Visc @ 40°C	cSt	█ 149	---	---	---
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## CONTAMINATION

Silicon	ppm	█ 7	---	---	---
Sodium	ppm	█ 11	---	---	---
Potassium	ppm	█ 0	---	---	---

### 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	█ 62	---	---	---
Copper	ppm	█ 6	---	---	---
Lead	ppm	█ 0	---	---	---
Tin	ppm	█ 0	---	---	---
Aluminum	ppm	█ <1	---	---	---
Chromium	ppm	█ <1	---	---	---
Molybdenum	ppm	█ 0	---	---	---
Nickel	ppm	█ 0	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	█ 1	---	---	---
Vanadium	ppm	0	---	---	---



## ADDITIVES

Calcium	ppm	█ 151	---	---	---
Magnesium	ppm	█ 4	---	---	---
Zinc	ppm	█ 124	---	---	---
Phosphorus	ppm	1860	---	---	---
Barium	ppm	█ 1	---	---	---
Boron	ppm	█ 83	---	---	---

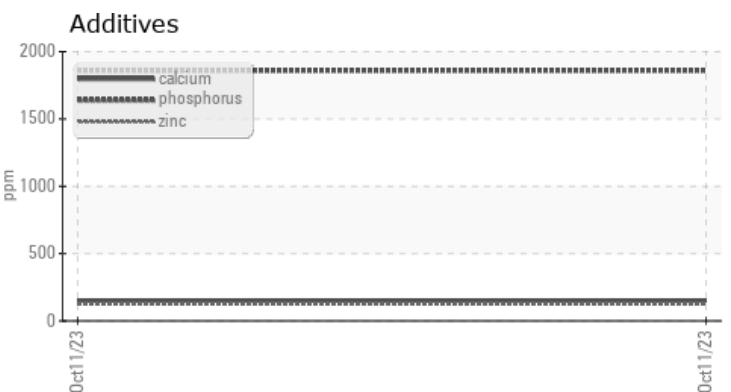
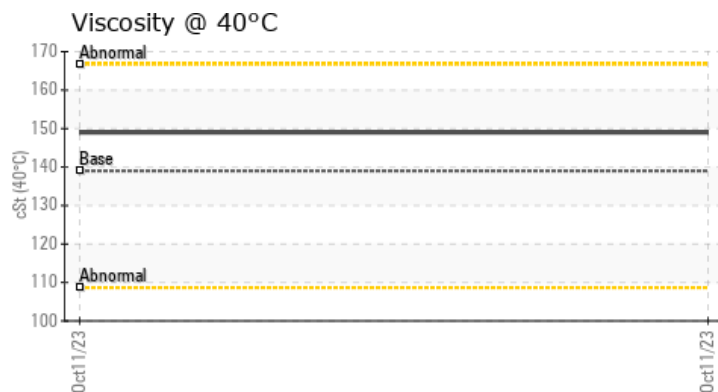
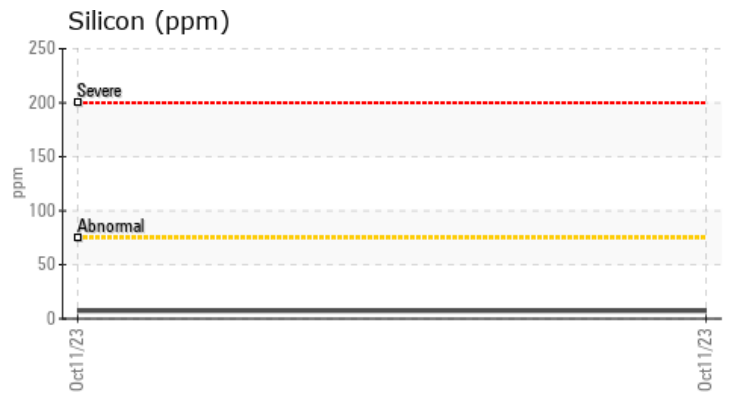
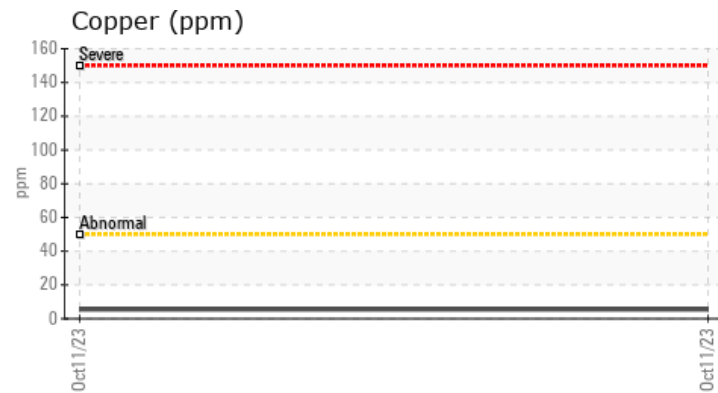
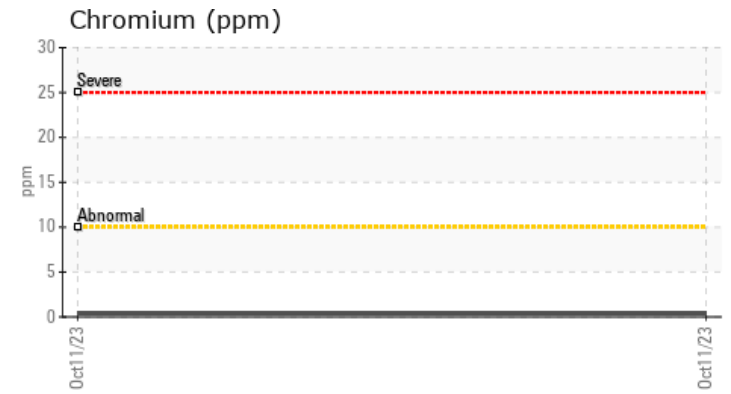
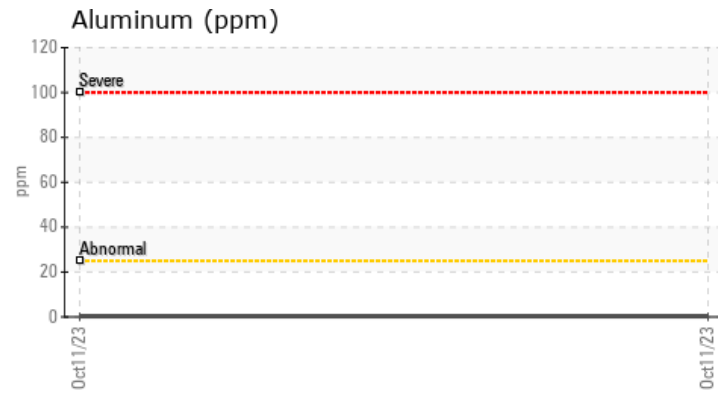
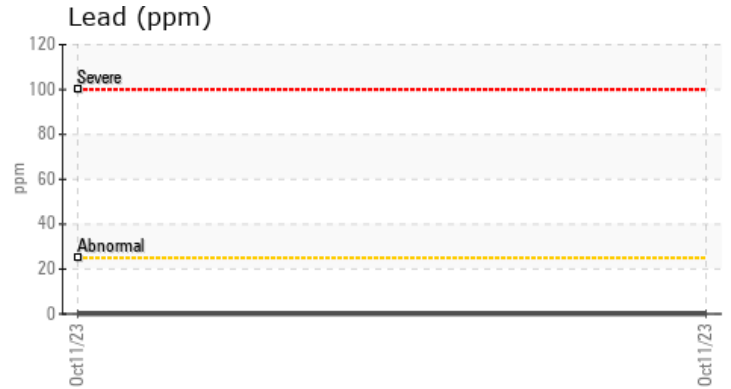
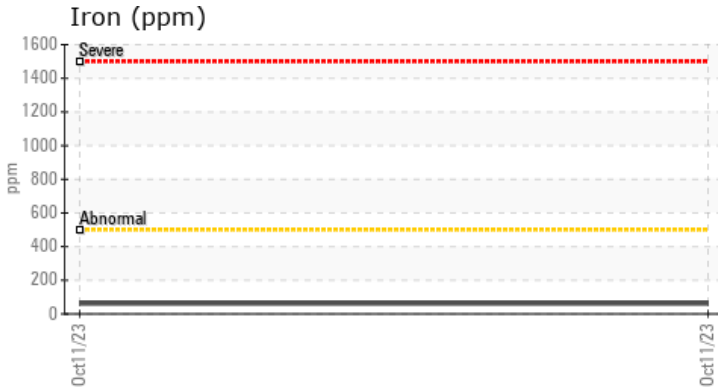
**Depot:** VOLVO5054  
**Unique No:** 10699911  
**Signed:** Wes Davis  
**Report Date:** 19 Oct 2023



# CONSTRUCTION EQUIPMENT



## GRAPHS



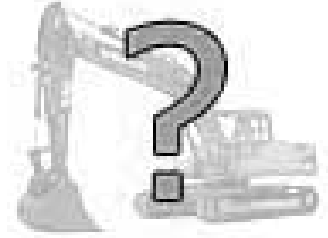


# CONSTRUCTION EQUIPMENT

380994-1 SENNEBOGEN 825 825.0.2552 - REAR LEFT FINAL DRIVE



**Sample No:** VCP384903  
**Oil Type:** VOLVO PREMIUM GEAR OIL 80W-90 GL-5  
**Job No:** 380994-1



## SAMPLE INFORMATION

Sample Number	<b>VCP384903</b>	VCP384902	---	---
Sample Date	<b>11 Oct 2023</b>	11 Oct 2023	---	---
Machine Hours	<b>9930</b>	9930	---	---
Oil Hours	<b>2000</b>	2000	---	---
Oil Changed	<b>Changed</b>	Changed	---	---
Sample Status	<b>NORMAL</b>	NORMAL	---	---

### ALTA EQUIPMENT COMPANY

1035 WYLIE DRIVE  
 BLOOMINGTON, IL  
 US 61705

Contact: JUSTIN PERRY  
 justin.perry@altg.com  
 T: (309)533-9285

F:



## OIL CONDITION

Visc @ 40°C	cSt	<b>148</b>	146	---	---
-------------	-----	------------	-----	-----	-----



## CONTAMINATION

Silicon	ppm	<b>6</b>	2	---	---
Sodium	ppm	<b>13</b>	5	---	---
Potassium	ppm	<b>&lt;1</b>	0	---	---



## WEAR METALS

Iron	ppm	<b>90</b>	73	---	---
Copper	ppm	<b>2</b>	<1	---	---
Lead	ppm	<b>0</b>	0	---	---
Tin	ppm	<b>0</b>	0	---	---
Aluminum	ppm	<b>&lt;1</b>	<1	---	---
Chromium	ppm	<b>&lt;1</b>	<1	---	---
Molybdenum	ppm	<b>0</b>	0	---	---
Nickel	ppm	<b>0</b>	0	---	---
Titanium	ppm	<b>0</b>	0	---	---
Silver	ppm	<b>0</b>	0	---	---
Manganese	ppm	<b>2</b>	2	---	---
Vanadium	ppm	<b>0</b>	0	---	---



## ADDITIVES

Calcium	ppm	<b>130</b>	59	---	---
Magnesium	ppm	<b>5</b>	4	---	---
Zinc	ppm	<b>106</b>	62	---	---
Phosphorus	ppm	<b>1838</b>	1643	---	---
Barium	ppm	<b>1</b>	<1	---	---
Boron	ppm	<b>81</b>	73	---	---

## 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.

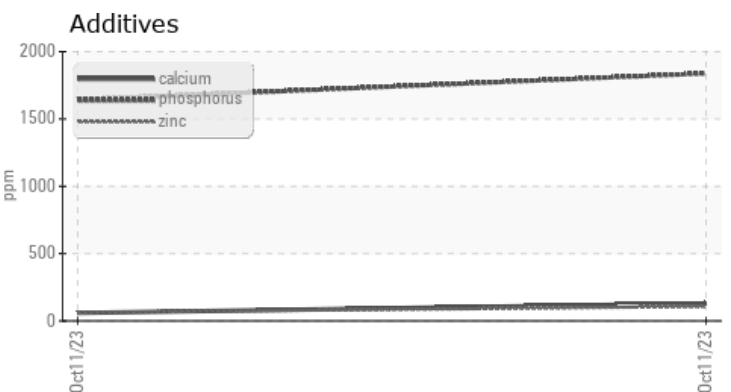
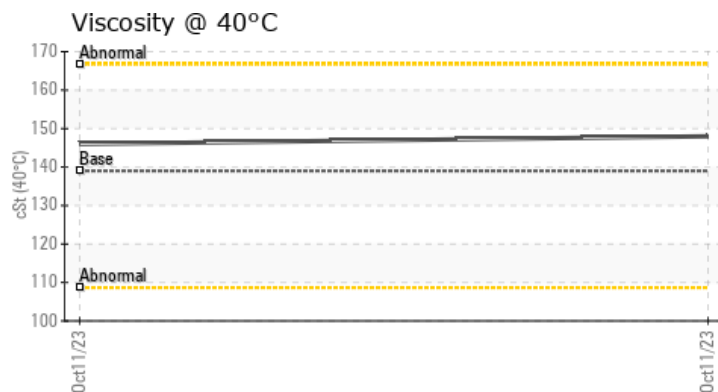
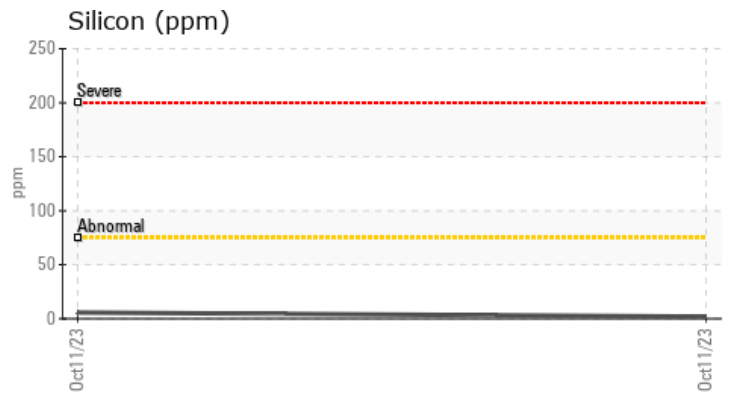
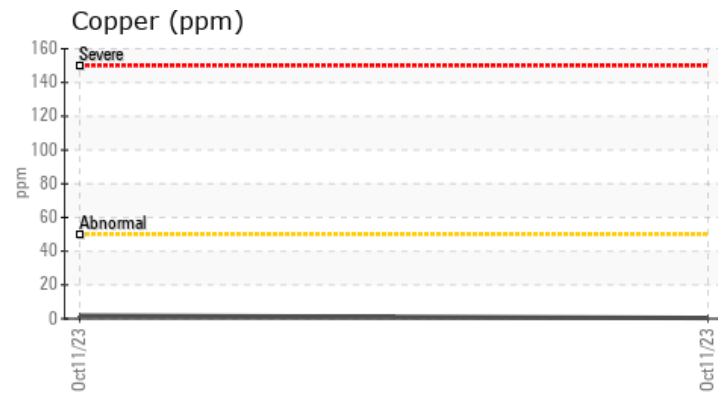
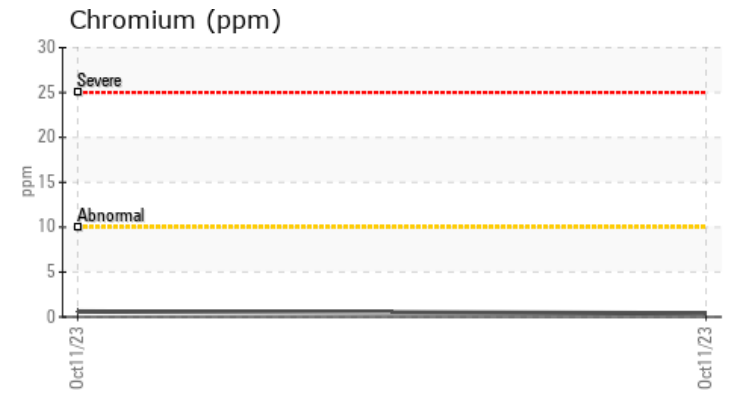
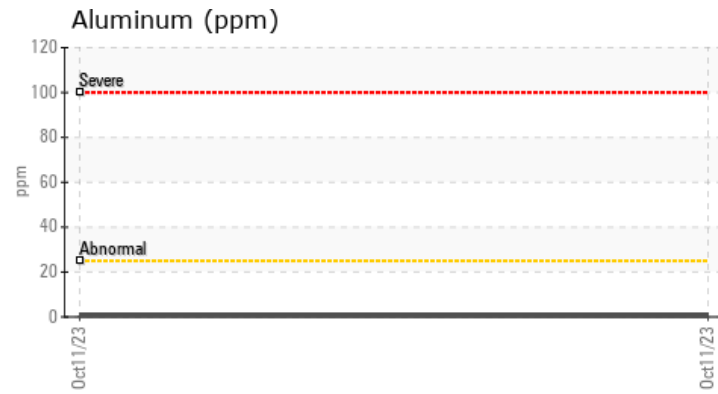
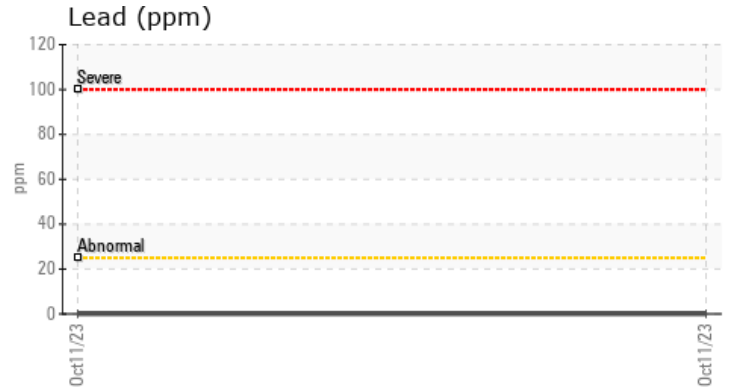
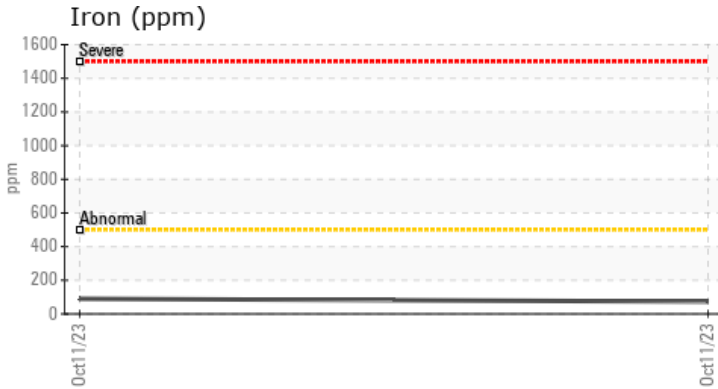
**Depot:** VOLVO5054  
**Unique No:** 10699922  
**Signed:** Wes Davis  
**Report Date:** 19 Oct 2023



# CONSTRUCTION EQUIPMENT



## GRAPHS



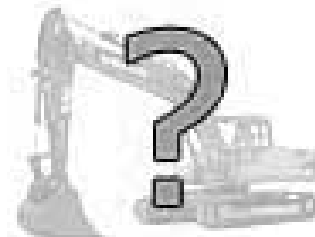


# CONSTRUCTION EQUIPMENT

380994-1 SENNEBOGEN 825 825.0.2552 - REAR AXLE



**Sample No:** VCP384900  
**Oil Type:** VOLVO PREMIUM GEAR OIL 80W-90 GL-5  
**Job No:** 380994-1



## SAMPLE INFORMATION

Sample Number	VCP384900	---	---	---
Sample Date	11 Oct 2023	---	---	---
Machine Hours	9930	---	---	---
Oil Hours	2000	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

### ALTA EQUIPMENT COMPANY

1035 WYLIE DRIVE  
 BLOOMINGTON, IL  
 US 61705

Contact: JUSTIN PERRY  
 justin.perry@altg.com  
 T: (309)533-9285  
 F:



## OIL CONDITION

Visc @ 40°C	cSt	█ 145	---	---	---
-------------	-----	-------	-----	-----	-----



## CONTAMINATION

Silicon	ppm	█ 2	---	---	---
Sodium	ppm	█ 5	---	---	---
Potassium	ppm	█ 0	---	---	---



## WEAR METALS

Iron	ppm	█ 73	---	---	---
Copper	ppm	█ <1	---	---	---
Lead	ppm	█ 0	---	---	---
Tin	ppm	█ 0	---	---	---
Aluminum	ppm	█ <1	---	---	---
Chromium	ppm	█ <1	---	---	---
Molybdenum	ppm	█ 0	---	---	---
Nickel	ppm	█ 0	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	█ 2	---	---	---
Vanadium	ppm	0	---	---	---



## ADDITIVES

Calcium	ppm	█ 66	---	---	---
Magnesium	ppm	█ 4	---	---	---
Zinc	ppm	█ 65	---	---	---
Phosphorus	ppm	1613	---	---	---
Barium	ppm	█ <1	---	---	---
Boron	ppm	█ 71	---	---	---

## 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.

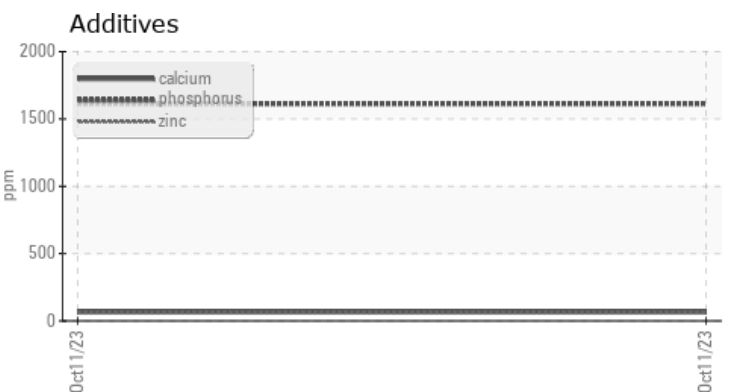
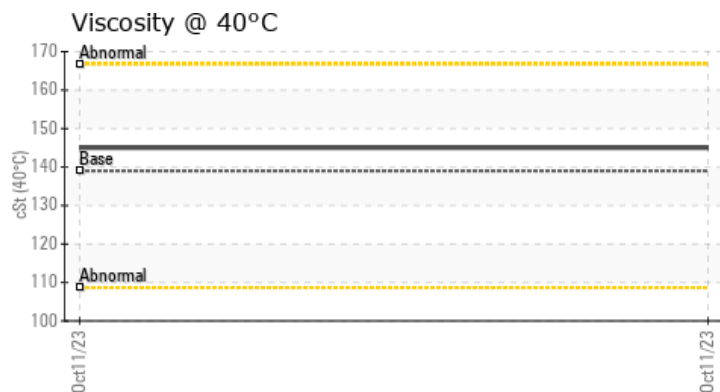
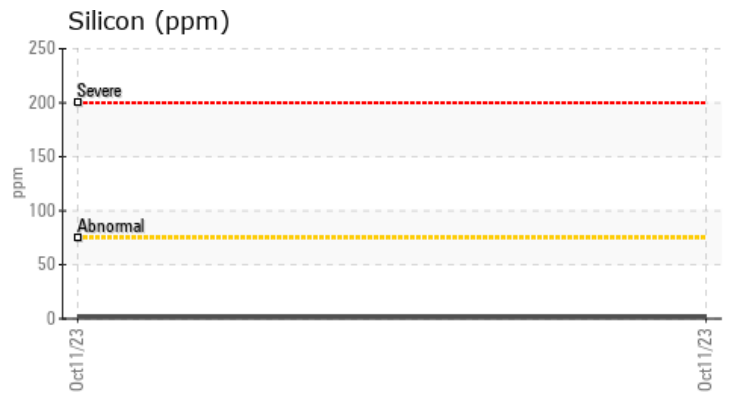
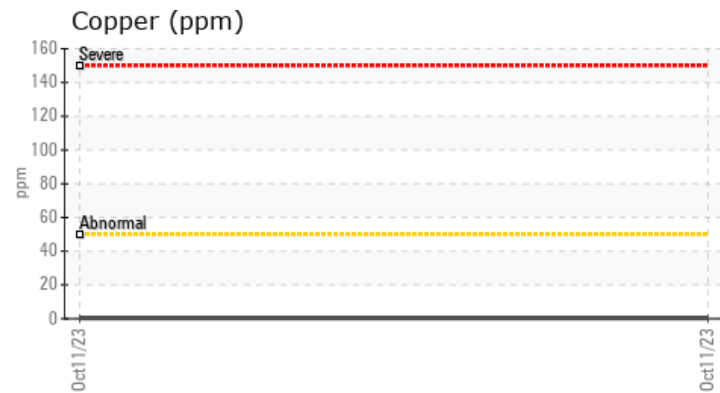
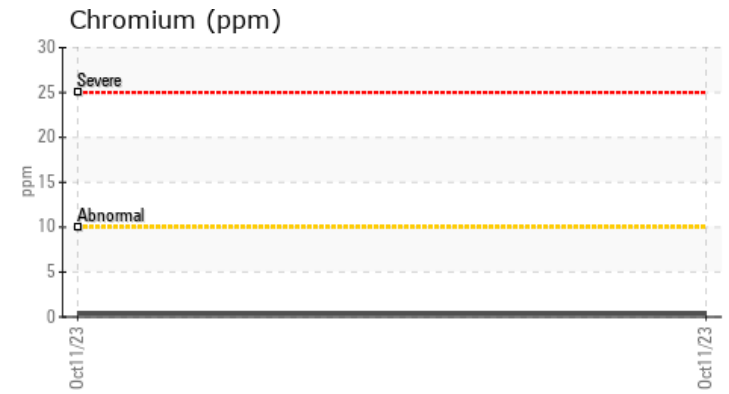
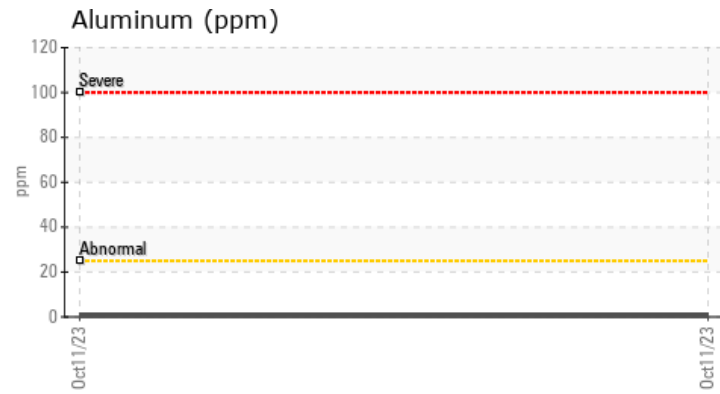
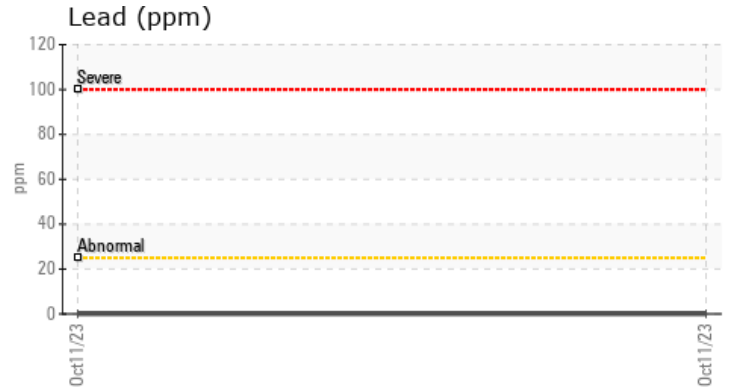
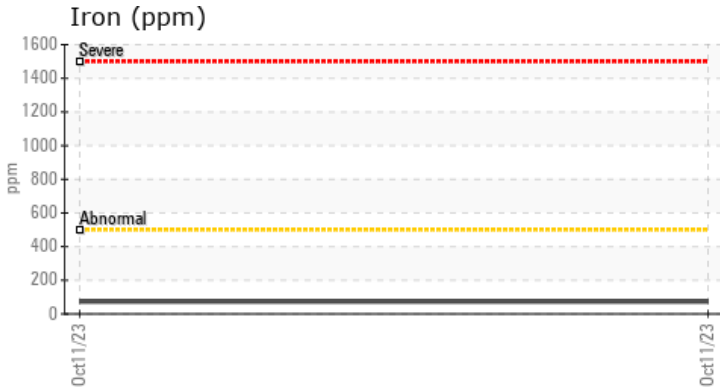
**Depot:** VOLVO5054  
**Unique No:** 10699912  
**Signed:** Wes Davis  
**Report Date:** 19 Oct 2023



# CONSTRUCTION EQUIPMENT



## GRAPHS





# CONSTRUCTION EQUIPMENT

380994-1 SENNEBOGEN 825 825.0.2552 - REAR RIGHT FINAL DRIVE



**Sample No:** VCP384904  
**Oil Type:** VOLVO PREMIUM GEAR OIL 80W-90 GL-5  
**Job No:** 380994-1



## SAMPLE INFORMATION

Sample Number	VCP384904	---	---	---
Sample Date	11 Oct 2023	---	---	---
Machine Hours	9930	---	---	---
Oil Hours	2000	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

### ALTA EQUIPMENT COMPANY

1035 WYLIE DRIVE  
 BLOOMINGTON, IL  
 US 61705  
 Contact: MIKE MARTIN  
 mike.martin@altaequipment.com



## OIL CONDITION

Visc @ 40°C	cSt	█ 145	---	---	---
-------------	-----	-------	-----	-----	-----

T:  
F:



## CONTAMINATION

Silicon	ppm	█ 2	---	---	---
Sodium	ppm	█ 5	---	---	---
Potassium	ppm	█ 0	---	---	---

### 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	█ 73	---	---	---
Copper	ppm	█ <1	---	---	---
Lead	ppm	█ 0	---	---	---
Tin	ppm	█ 0	---	---	---
Aluminum	ppm	█ <1	---	---	---
Chromium	ppm	█ <1	---	---	---
Molybdenum	ppm	█ 0	---	---	---
Nickel	ppm	█ 0	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	█ 2	---	---	---
Vanadium	ppm	0	---	---	---



## ADDITIVES

Calcium	ppm	█ 59	---	---	---
Magnesium	ppm	█ 4	---	---	---
Zinc	ppm	█ 62	---	---	---
Phosphorus	ppm	1652	---	---	---
Barium	ppm	█ <1	---	---	---
Boron	ppm	█ 73	---	---	---

**Depot:** VOLVO5054  
**Unique No:** 10699921  
**Signed:** Wes Davis  
**Report Date:** 19 Oct 2023



# CONSTRUCTION EQUIPMENT



## VOLVO GRAPHS

