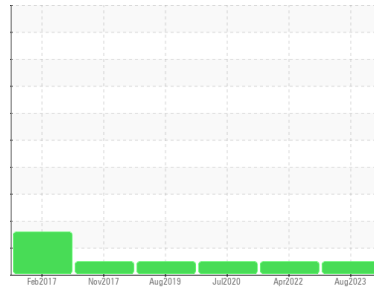




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**CONSTRUCTORS, INC**  
 Machine Id  
**VOLVO DIESEL. 121254**

Component  
**Diesel Engine**  
 Fluid  
**MOBIL DELVAC 1300 SUPER 10W30 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>SBP0004739</b>	SBP0000617	SBP02123028
Sample Date	Client Info			<b>16 Aug 2023</b>	20 Apr 2022	17 Jul 2020
Machine Age	hrs	Client Info		<b>4486</b>	3975	2987
Oil Age	hrs	Client Info		<b>511</b>	482	523
Oil Changed	Client Info			<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method		>6.0	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method			<b>NEG</b>	NEG	0.0

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	<b>20</b>	13	28
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>11</b>	7	7
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>3</b>	2	3
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>42</b>	53	33
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>36</b>	25	39
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m		<b>631</b>	621	508
Calcium	ppm	ASTM D5185m		<b>1405</b>	1701	1653
Phosphorus	ppm	ASTM D5185m		<b>812</b>	806	799
Zinc	ppm	ASTM D5185m		<b>996</b>	904	889
Sulfur	ppm	ASTM D5185m		<b>3023</b>	2586	---

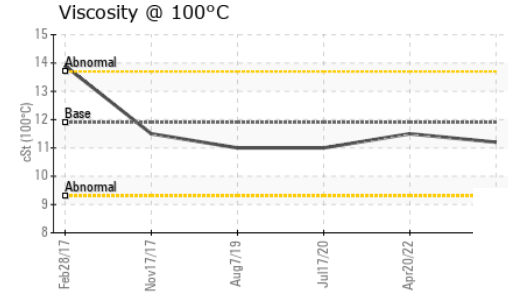
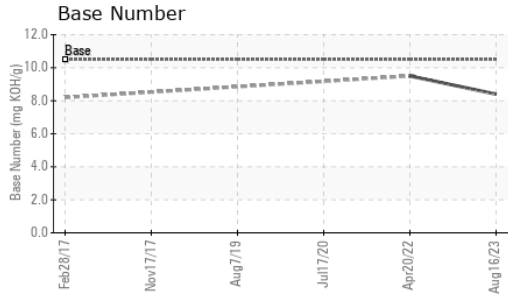
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>3</b>	6	6
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	3	3
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	0
Chlorine	ppm	ASTM D5185m		<b>---</b>	---	0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.2	0.39
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.6</b>	9.2	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.3</b>	21.0	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.7</b>	18.5	11
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	<b>8.4</b>	9.5	---



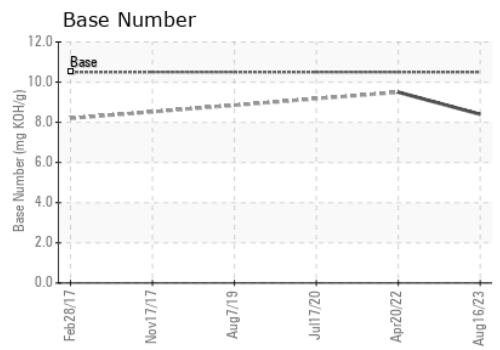
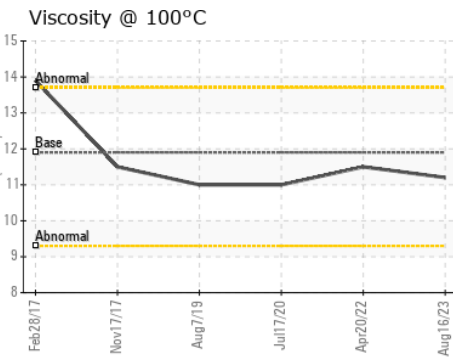
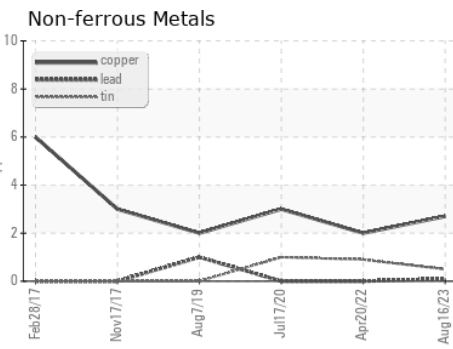
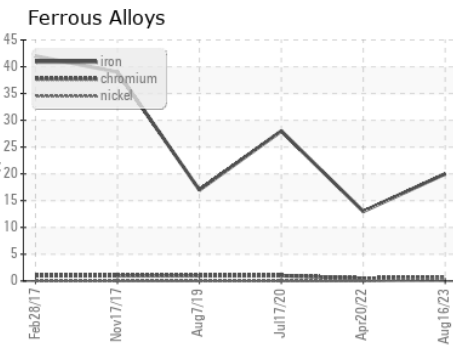
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	11.9	<b>11.2</b>	11.5	11

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : SBP0004739 **Received** : 21 Aug 2023  
**Lab Number** : **05929347** **Diagnosed** : 22 Aug 2023  
**Unique Number** : 10609294 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**Constructors Inc. - 603659**  
 1815 Y Street  
 Lincoln, NE  
 US 68508  
 Contact: Jack Linhart  
 jackl@constructorslincoln.com  
 T: (402)434-2157  
 F:

Certificate L2367  
 To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)