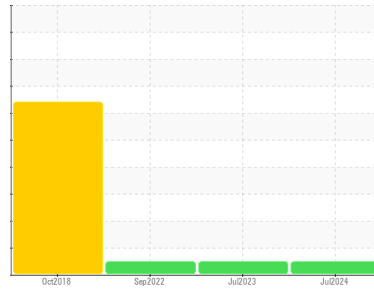




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**CONSTRUCTORS, INC**

Machine Id  
**13-0866**

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>SBP0007070</b>	SBP0004763	SBP0001278	
Sample Date	Client Info	<b>11 Jul 2024</b>	21 Jul 2023	22 Sep 2022	
Machine Age	hrs	Client Info	<b>3655</b>	3478	3174
Oil Age	hrs	Client Info	<b>34</b>	304	303
Oil Changed	Client Info	<b>N/A</b>	Changed	Changed	
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL	

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method >0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >90	<b>32</b>	27	14
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm ASTM D5185m >2	<b>0</b>	0	<1
Titanium	ppm ASTM D5185m >2	<b>0</b>	<1	0
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>7</b>	7	2
Lead	ppm ASTM D5185m >40	<b>6</b>	6	0
Copper	ppm ASTM D5185m >330	<b>3</b>	3	10
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	<1	0
Vanadium	ppm ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	<b>60</b>	44	20
Barium	ppm ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m	<b>67</b>	61	71
Manganese	ppm ASTM D5185m	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m	<b>943</b>	897	470
Calcium	ppm ASTM D5185m	<b>2238</b>	2055	1192
Phosphorus	ppm ASTM D5185m	<b>1104</b>	1018	615
Zinc	ppm ASTM D5185m	<b>1338</b>	1274	736
Sulfur	ppm ASTM D5185m	<b>3765</b>	3453	2918

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>19</b>	14	9
Sodium	ppm ASTM D5185m	<b>4</b>	4	3
Potassium	ppm ASTM D5185m >20	<b>2</b>	0	2
Chlorine	ppm ASTM D5185m	<b>---</b>	---	---

## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >6	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm *ASTM D7624 >20	<b>9.1</b>	8.3	10.4
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>22.8</b>	22.6	23.6

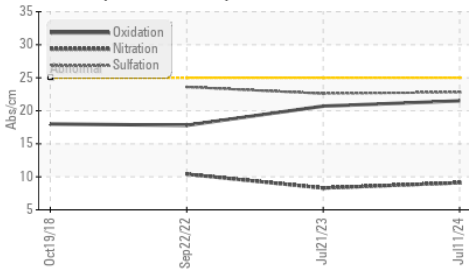
## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>21.5</b>	20.7	17.8
Base Number (BN)	mg KOH/g ASTM D2896 10.5	<b>10.8</b>	11.0	4.7

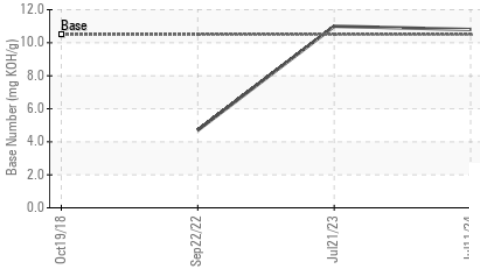


# OIL ANALYSIS REPORT

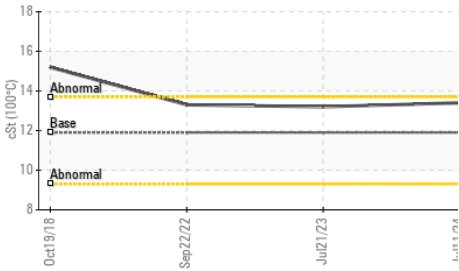
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

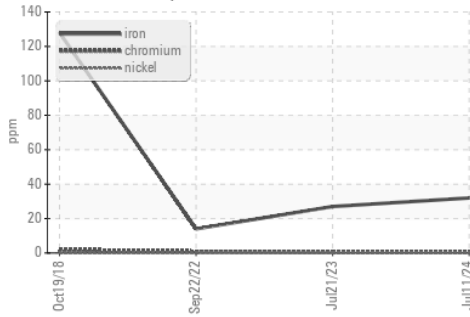


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

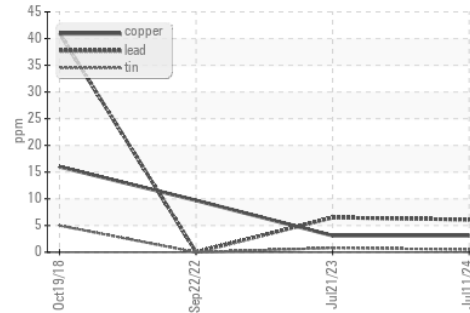
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	11.9	13.4	13.2

## GRAPHS

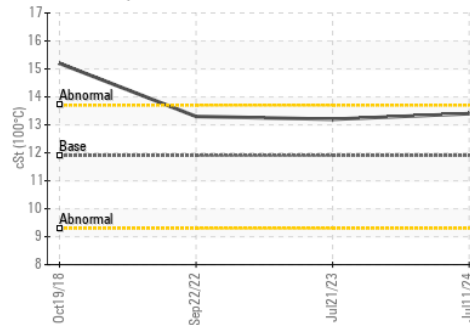
Ferrous Alloys



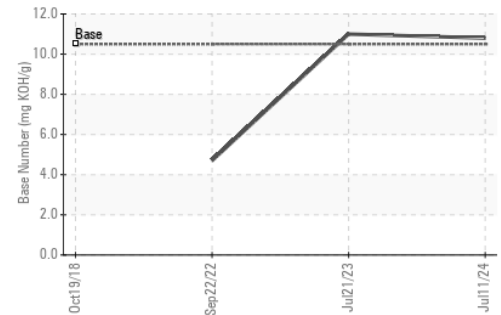
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : SBP0007070      **Received** : 15 Jul 2024  
**Lab Number** : 06237424      **Tested** : 16 Jul 2024  
**Unique Number** : 11126258      **Diagnosed** : 18 Jul 2024 - Jonathan Hester  
**Test Package** : FLEET

**Constructors Inc. - 603659**  
 6500 N 70TH ST  
 LINCOLN, NE  
 US 68507  
 Contact: Loren Michael  
 LorenM@constructorslincoln.com  
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 F:

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)