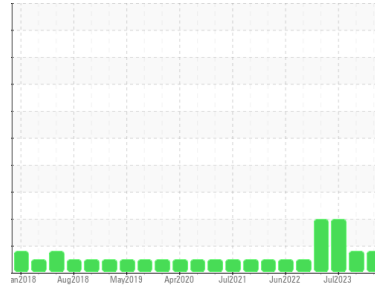


Machine Id  
**PHOENIX MIXER 259**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**



**DIAGNOSIS**

**Recommendation**  
 Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

**Wear**  
 The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core).

**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 acceptable for the time in service.

**SAMPLE INFORMATION**

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>PCA0109568</b>	LP0000977	WC0721064
Sample Date	Client Info		<b>01 Mar 2024</b>	20 Oct 2023	21 Jul 2023
Machine Age	hrs	Client Info	<b>14940</b>	14282	13690
Oil Age	hrs	Client Info	<b>500</b>	500	500
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>ABNORMAL</b>	MARGINAL	ABNORMAL

**CONTAMINATION**

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	▲ 4.1	▲ 6.4
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG

**WEAR METALS**

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>29</b>	44	29
Chromium	ppm	ASTM D5185m >4	<b>2</b>	<1	<1
Nickel	ppm	ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >9	<b>2</b>	<1	<1
Lead	ppm	ASTM D5185m >20	<b>&lt;1</b>	3	4
Copper	ppm	ASTM D5185m >260	▲ <b>589</b>	208	▲ 313
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

**ADDITIVES**

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 250	<b>8</b>	11	14
Barium	ppm	ASTM D5185m 10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 100	<b>41</b>	60	66
Manganese	ppm	ASTM D5185m	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m 450	<b>169</b>	786	669
Calcium	ppm	ASTM D5185m 3000	<b>1754</b>	1245	1379
Phosphorus	ppm	ASTM D5185m 1150	<b>866</b>	1015	964
Zinc	ppm	ASTM D5185m 1350	<b>1043</b>	1268	1201
Sulfur	ppm	ASTM D5185m 4250	<b>3249</b>	2962	3358

**CONTAMINANTS**

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>4</b>	3	3
Sodium	ppm	ASTM D5185m >158	<b>21</b>	2	2
Potassium	ppm	ASTM D5185m >20	<b>32</b>	<1	2
Glycol	%	*ASTM D2982	<b>NEG</b>	NEG	NEG

**INFRA-RED**

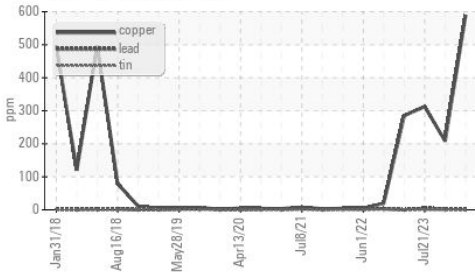
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.2</b>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.1</b>	8.8	9.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.2</b>	20.3	20.8

**FLUID DEGRADATION**

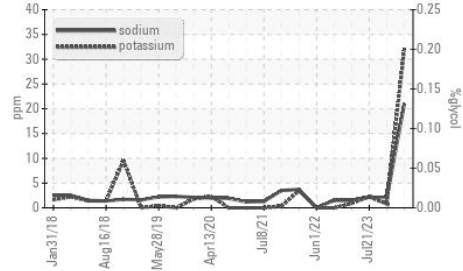
	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.5</b>	17.8	18.8
Base Number (BN)	mg KOH/g	ASTM D2896 8.5	<b>7.86</b>	8.75	8.78

# OIL ANALYSIS REPORT

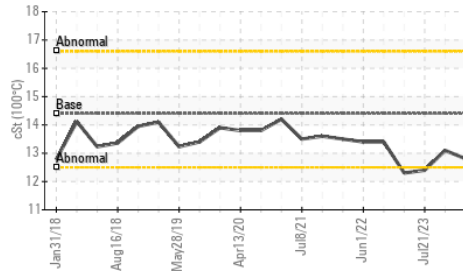
## ▲ Non-ferrous Metals



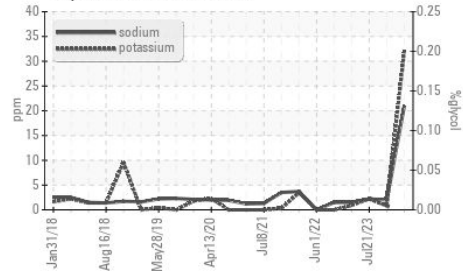
## Glycol Contamination



## Viscosity @ 100°C



## Glycol Contamination



## Viscosity @ 100°C



## VISUAL

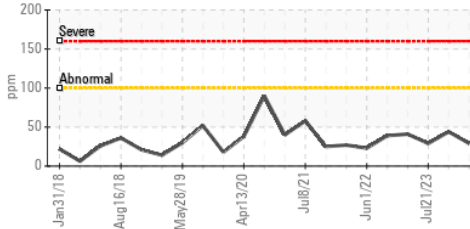
Property	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

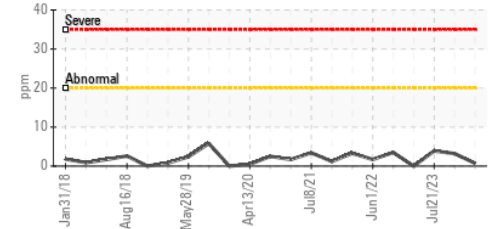
Property	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	12.8	13.1 ▲ 12.4

## GRAPHS

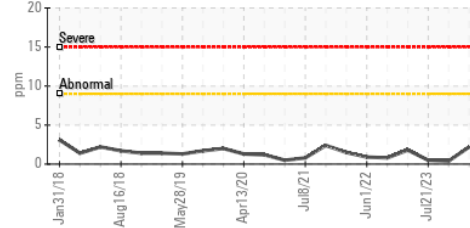
### Iron (ppm)



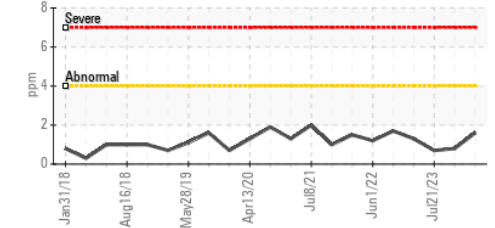
### Lead (ppm)



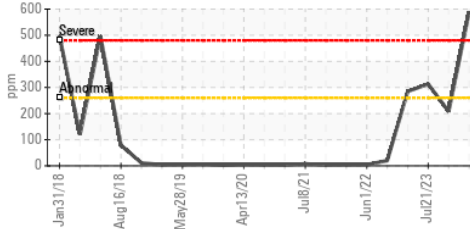
### Aluminum (ppm)



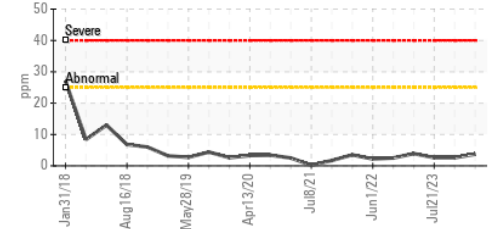
### Chromium (ppm)



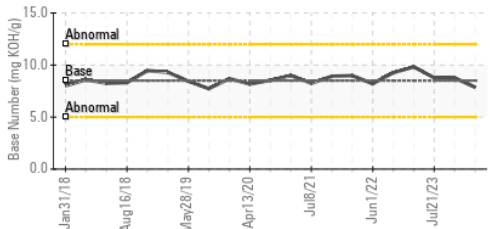
### ▲ Copper (ppm)



### Silicon (ppm)



### Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : PCA0109568

**Lab Number** : 06115407

**Unique Number** : 10924240

**Test Package** : MOB 2 ( Additional Tests: Glycol )

**Received** : 11 Mar 2024

**Tested** : 14 Mar 2024

**Diagnosed** : 14 Mar 2024 - Jonathan Hester

**TRESCA BROS SAND & GRAVEL INC**

66 MAIN ST

MILLIS, MA

US 02054

Contact: FRAN ROSSI

frossi@trescaconcrete.com

T: (508)376-2957

F: (508)376-4333

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)