



# PROBLEM SUMMARY

Sample Rating Trend

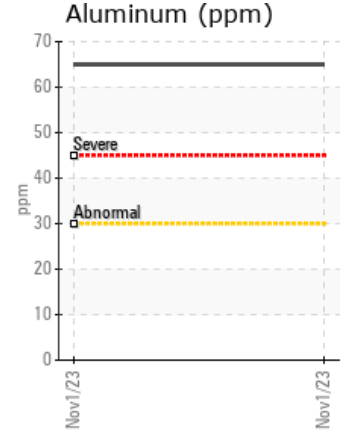
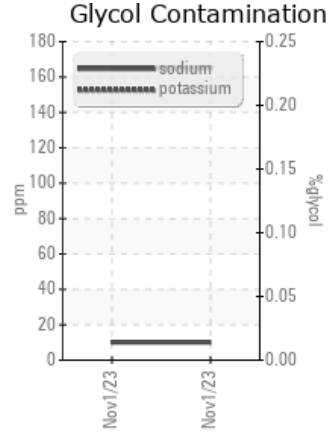
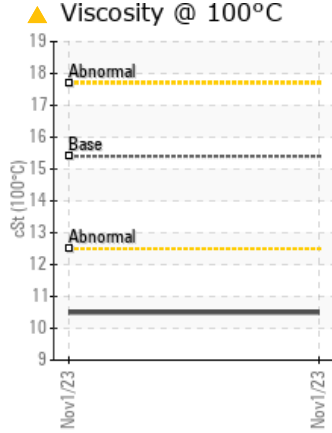
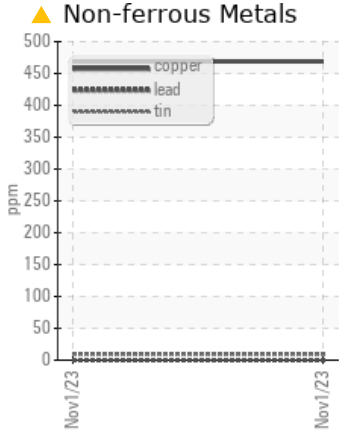


**WEAR**



Area  
**SCHTRUCK**  
 Machine Id  
**6500 [SCHTRUCK]**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (10 GAL)**

## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status	ABNORMAL	---	---
Copper	ppm	ASTM D5185m	>30
Visc @ 100°C	cSt	ASTM D445	15.4

Customer Id: SCHPLA  
 Sample No.: SBP0005899  
 Lab Number: 06000967  
 Test Package: FLEET



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To discuss the diagnosis or test data:  
 Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

## HISTORICAL DIAGNOSIS



# OIL ANALYSIS REPORT

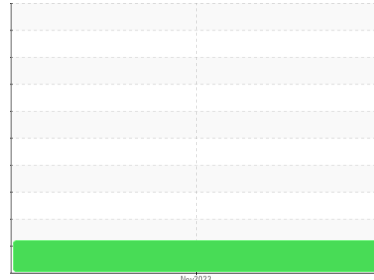
Sample Rating Trend

WEAR



Area  
**SCHTRUCK**  
Machine Id  
**6500 [SCHTRUCK]**

Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (10 GAL)**



## DIAGNOSIS

### Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. 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). All other metal levels are typical for a new component breaking in.

### Contamination

Fuel content negligible. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components.

### Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>SBP0005899</b>	---	---
Sample Date	Client Info	<b>01 Nov 2023</b>	---	---
Machine Age	hrs Client Info	<b>39541</b>	---	---
Oil Age	hrs Client Info	<b>39541</b>	---	---
Oil Changed	Client Info	<b>Changed</b>	---	---
Sample Status		<b>ABNORMAL</b>	---	---

## CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	<b>NEG</b>	---	---

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >200	<b>128</b>	---	---
Chromium	ppm ASTM D5185m >20	<b>7</b>	---	---
Nickel	ppm ASTM D5185m >2	<b>2</b>	---	---
Titanium	ppm ASTM D5185m >2	<b>0</b>	---	---
Silver	ppm ASTM D5185m >2	<b>&lt;1</b>	---	---
Aluminum	ppm ASTM D5185m >30	<b>65</b>	---	---
Lead	ppm ASTM D5185m >30	<b>0</b>	---	---
Copper	ppm ASTM D5185m >30	<b>▲ 469</b>	---	---
Tin	ppm ASTM D5185m >15	<b>9</b>	---	---
Vanadium	ppm ASTM D5185m	<b>0</b>	---	---
Cadmium	ppm ASTM D5185m	<b>0</b>	---	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>37</b>	---	---
Barium	ppm ASTM D5185m 0	<b>0</b>	---	---
Molybdenum	ppm ASTM D5185m 60	<b>60</b>	---	---
Manganese	ppm ASTM D5185m 0	<b>6</b>	---	---
Magnesium	ppm ASTM D5185m 1010	<b>710</b>	---	---
Calcium	ppm ASTM D5185m 1070	<b>2208</b>	---	---
Phosphorus	ppm ASTM D5185m 1150	<b>935</b>	---	---
Zinc	ppm ASTM D5185m 1270	<b>1205</b>	---	---
Sulfur	ppm ASTM D5185m 2060	<b>2656</b>	---	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >30	<b>13</b>	---	---
Sodium	ppm ASTM D5185m	<b>10</b>	---	---
Potassium	ppm ASTM D5185m >20	<b>165</b>	---	---
Fuel	% ASTM D3524 >3.0	<b>0.4</b>	---	---

## INFRA-RED

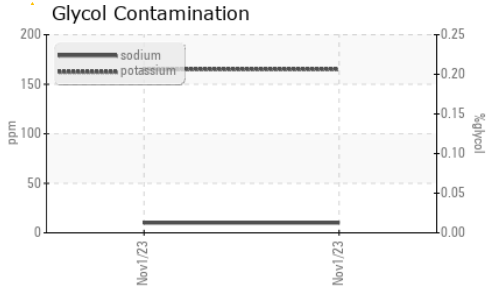
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.7</b>	---	---
Nitration	Abs/cm *ASTM D7624 >20	<b>13.0</b>	---	---
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>24.4</b>	---	---

## FLUID DEGRADATION

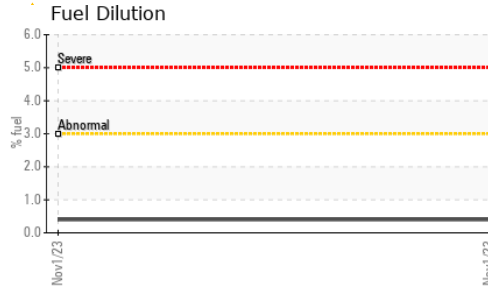
method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>30.9</b>	---	---
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>5.8</b>	---	---



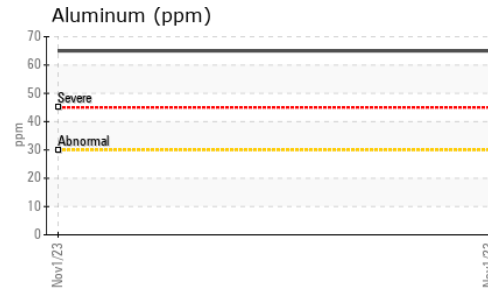
# OIL ANALYSIS REPORT



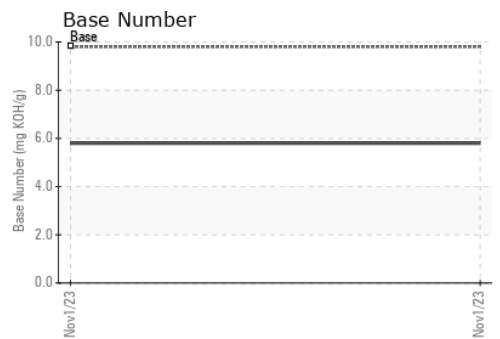
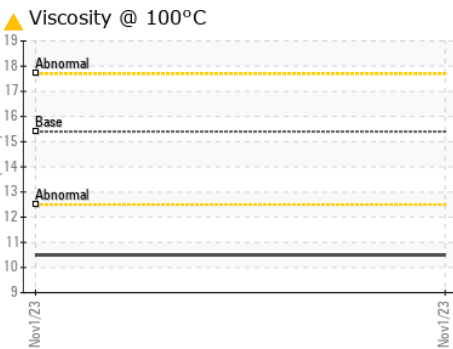
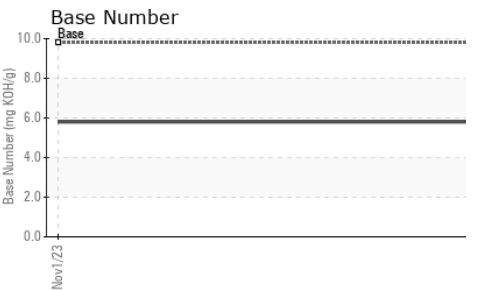
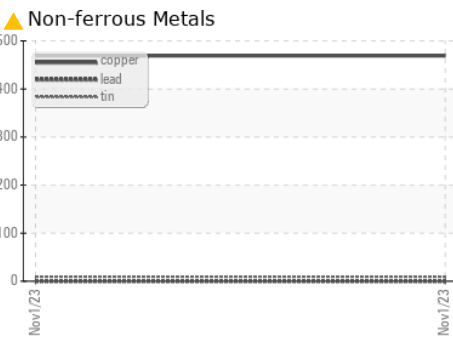
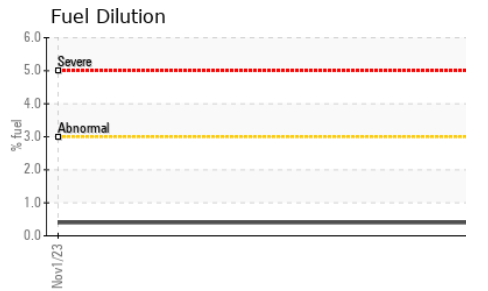
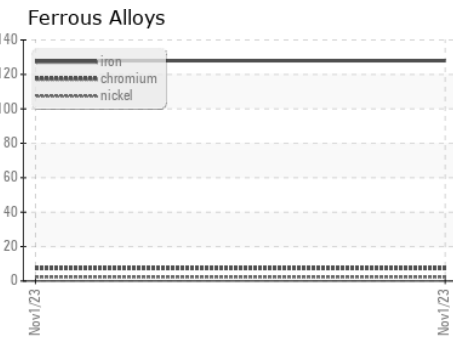
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---
Precipitate	scalar	*Visual	NONE	<b>NONE</b>	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---
Sand/Dirt	scalar	*Visual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



FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	<b>▲ 10.5</b>	---



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : SBP0005899 **Received** : 07 Nov 2023  
**Lab Number** : 06000967 **Diagnosed** : 09 Nov 2023  
**Unique Number** : 10729327 **Diagnostician** : Don Baldrige  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

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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)