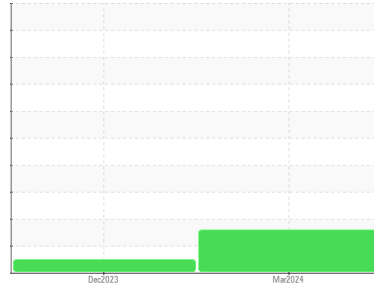


OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area
(N/A) Preferred Service-Yard Horse
Machine Id
[Preferred Service-Yard Horse] 192A03-9091
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (16 QTS)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

Piston, ring and cylinder wear is indicated.

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	PCA0116685	PCA0112175	---
Sample Date	Client Info	12 Mar 2024	17 Dec 2023	---
Machine Age	hrs	21482	20718	---
Oil Age	hrs	764	14161	---
Oil Changed	Client Info	Changed	Changed	---
Sample Status		ABNORMAL	NORMAL	---

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	<1.0	---
Water	WC Method >0.2	NEG	NEG	---
Glycol	WC Method	NEG	NEG	---

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	▲ 155	50	---
Chromium	ppm ASTM D5185m >20	3	1	---
Nickel	ppm ASTM D5185m >4	<1	<1	---
Titanium	ppm ASTM D5185m	<1	<1	---
Silver	ppm ASTM D5185m >3	0	0	---
Aluminum	ppm ASTM D5185m >20	▲ 40	8	---
Lead	ppm ASTM D5185m >40	<1	0	---
Copper	ppm ASTM D5185m >330	4	2	---
Tin	ppm ASTM D5185m >15	0	<1	---
Vanadium	ppm ASTM D5185m	0	0	---
Cadmium	ppm ASTM D5185m	0	0	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 2	0	1	---
Barium	ppm ASTM D5185m 0	0	9	---
Molybdenum	ppm ASTM D5185m 50	65	77	---
Manganese	ppm ASTM D5185m 0	1	<1	---
Magnesium	ppm ASTM D5185m 950	1020	1199	---
Calcium	ppm ASTM D5185m 1050	1155	1305	---
Phosphorus	ppm ASTM D5185m 995	1137	1292	---
Zinc	ppm ASTM D5185m 1180	1347	1538	---
Sulfur	ppm ASTM D5185m 2600	2999	3697	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	8	5	---
Sodium	ppm ASTM D5185m	2	<1	---
Potassium	ppm ASTM D5185m >20	7	3	---

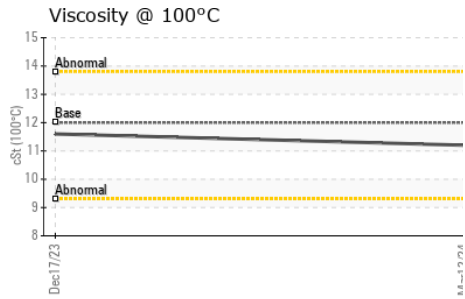
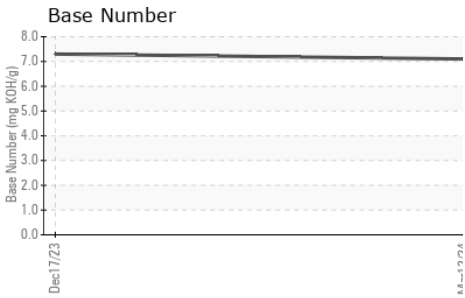
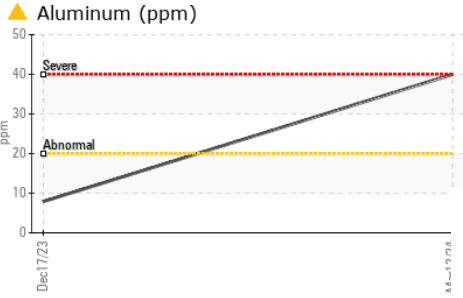
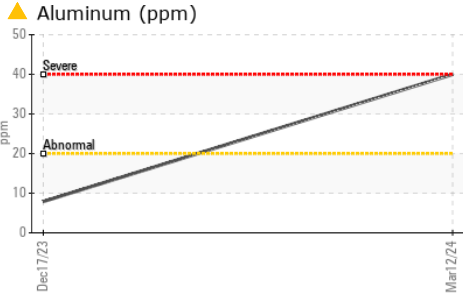
INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.5	0.4	---
Nitration	Abs/cm *ASTM D7624 >20	12.3	10.6	---
Sulfation	Abs/.1mm *ASTM D7415 >30	21.9	21.2	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	22.7	20.4	---
Base Number (BN)	mg KOH/g ASTM D2896	7.1	7.3	---

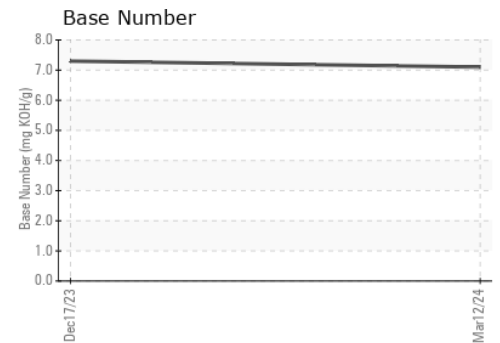
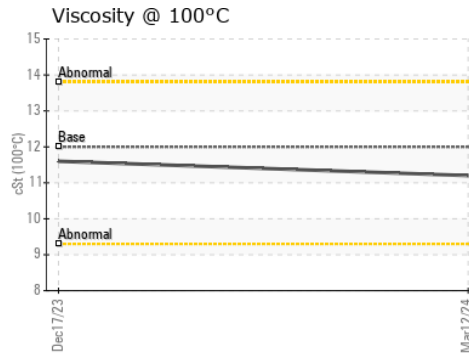
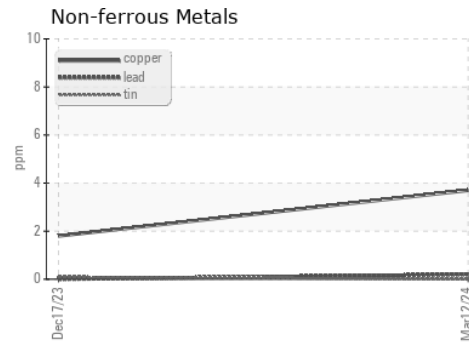
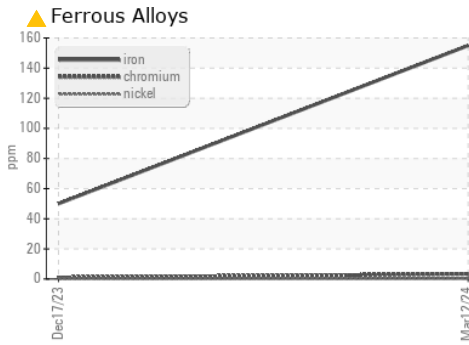
OIL ANALYSIS REPORT



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	12.00	11.2	11.6

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0116685 **Received** : 22 Mar 2024
Lab Number : **06126124** **Tested** : 22 Mar 2024
Unique Number : 10940275 **Diagnosed** : 26 Mar 2024 - Don Baldrige
Test Package : FLEET

Transervice - Shop 1920 - Preferred Service
 1955 W. North Avenue, Bldg K
 Melrose Park, IL
 US 60160
 Contact: Tom Lindeman
 tlindemann@transervice.com
 T: (630)376-8946
 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)