



WEAR	<b>ABNORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area  
**FLEET**

Machine Id  
**2126948 (S/N N603211)**

Component  
**Primary Diesel Engine**

Fluid  
**PETRO CANADA 10W30 (36 QTS)**

**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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PCA0116238</b>	PCA0108109	PCA0102040
Sample Date		Client Info		<b>18 Mar 2024</b>	14 Nov 2023	25 Jul 2023
Machine Age	mls	Client Info		<b>152045</b>	152045	0
Oil Age	mls	Client Info		<b>152045</b>	40000	0
Filter Age	mls	Client Info		<b>0</b>	40000	0
Oil Changed		Client Info		<b>Changed</b>	Changed	N/A
Filter Changed		Client Info		<b>Changed</b>	Changed	N/A
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

**WEAR**

Exhaust valve wear is indicated.

Iron	ppm	ASTM D5185m	>100	<b>21</b>	22	23
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>▲ 6</b>	4	2
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	5	4
Lead	ppm	ASTM D5185m	>40	<b>0</b>	1	1
Copper	ppm	ASTM D5185m	>330	<b>14</b>	29	49
Tin	ppm	ASTM D5185m	>15	<b>0</b>	1	2
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

There is no indication of any contamination in the oil.

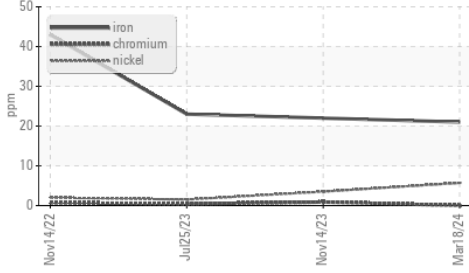
Silicon	ppm	ASTM D5185m	>25	<b>5</b>	8	6
Potassium	ppm	ASTM D5185m	>20	<b>6</b>	16	10
Fuel		WC Method	>6.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.5	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.5</b>	9.7	10.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.0</b>	21.3	21.4
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

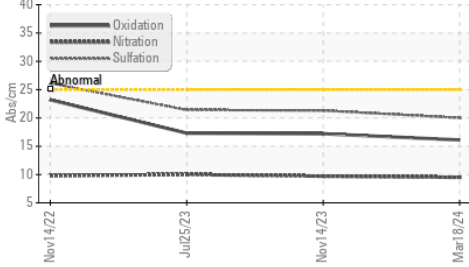
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>2</b>	7	2
Boron	ppm	ASTM D5185m		<b>0</b>	1	<1
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>63</b>	62	63
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>960</b>	945	931
Calcium	ppm	ASTM D5185m		<b>1179</b>	1082	1131
Phosphorus	ppm	ASTM D5185m		<b>1038</b>	937	846
Zinc	ppm	ASTM D5185m		<b>1245</b>	1225	1191
Sulfur	ppm	ASTM D5185m		<b>3445</b>	2547	2679
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.1</b>	17.2	17.3
Base Number (BN)	mg KOH/g	ASTM D2896		<b>6.1</b>	6.3	6.3
Visc @ 100°C	cSt	ASTM D445		<b>10.9</b>	11.4	11.0

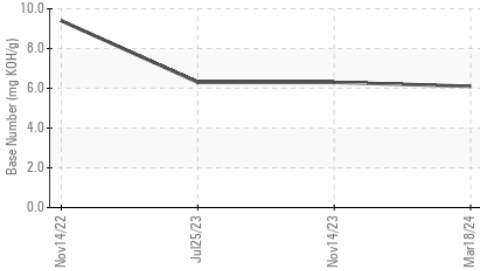
▲ Ferrous Alloys



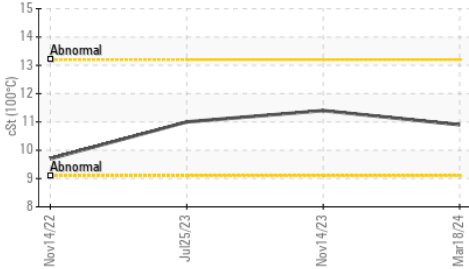
FT-IR (Direct Trend)



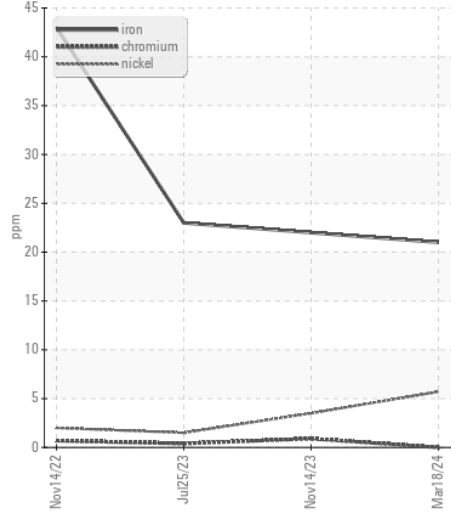
Base Number



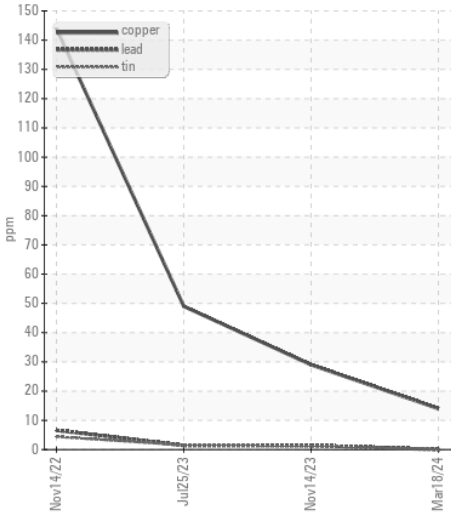
Viscosity @ 100°C



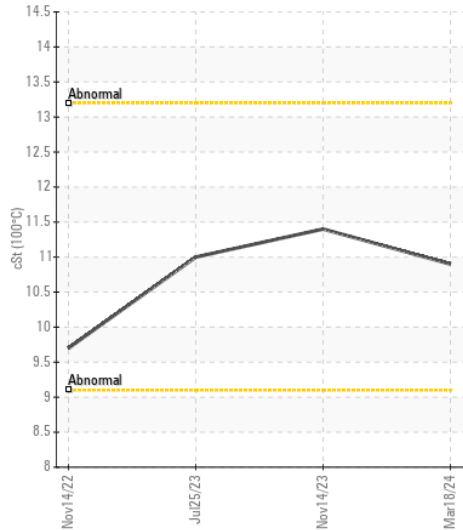
▲ Ferrous Alloys



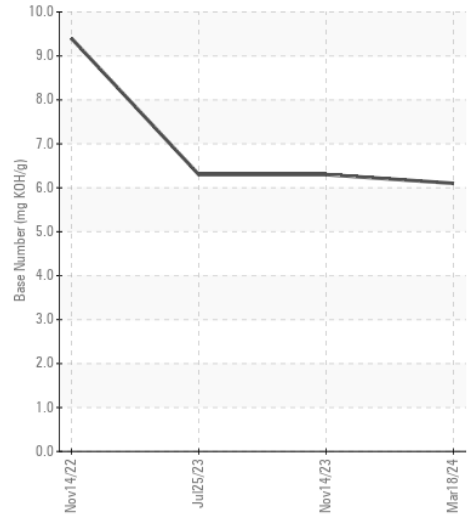
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0116238  
**Lab Number** : 06147027  
**Unique Number** : 10977105  
**Test Package** : FLEET

**Received** : 12 Apr 2024  
**Tested** : 15 Apr 2024  
**Diagnosed** : 15 Apr 2024 - Sean Felton

**PERDUE FARMS - DILLON**  
 2047 HWY 9 WEST  
 DILLON, SC  
 US 29536

Contact: KEVIN HOOKS  
 kevin.hooks@perdue.com

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)

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