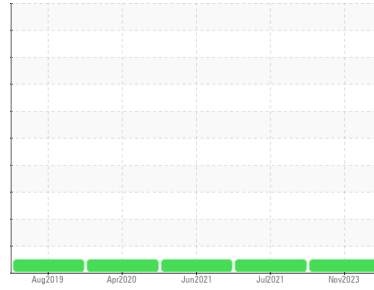




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**INTERNATIONAL 2248**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA 15W40 (--- 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>RW0004867</b>	RW0002502	RW0001995
Sample Date	Client Info			<b>13 Nov 2023</b>	13 Jul 2021	15 Jun 2021
Machine Age	hrs	Client Info		<b>16333</b>	15264	15264
Oil Age	hrs	Client Info		<b>250</b>	258	250
Oil Changed	Client Info			<b>Changed</b>	Changed	Not Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>2.0		<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	>100	<b>26</b>	12	12
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	1	1
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	2	0
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Antimony	ppm	ASTM D5185m		<b>---</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		<b>5</b>	62	115
Barium	ppm	ASTM D5185m		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>61</b>	17	19
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>904</b>	630	624
Calcium	ppm	ASTM D5185m		<b>1078</b>	1328	1345
Phosphorus	ppm	ASTM D5185m		<b>1098</b>	999	987
Zinc	ppm	ASTM D5185m		<b>1222</b>	1092	1099
Sulfur	ppm	ASTM D5185m		<b>3114</b>	3139	3210

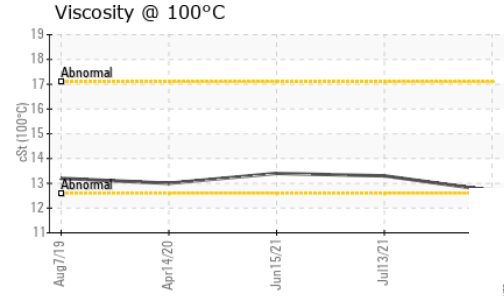
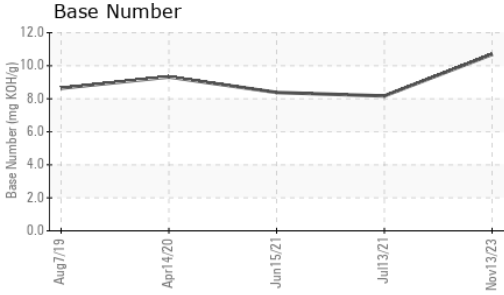
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>4</b>	3	4
Sodium	ppm	ASTM D5185m		<b>6</b>	2	2
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	<1	1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.5</b>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.1</b>	7.1	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.4</b>	19.8	19.9

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.6</b>	13.6	13.5
Base Number (BN)	mg KOH/g	ASTM D2896		<b>10.69</b>	8.17	8.38



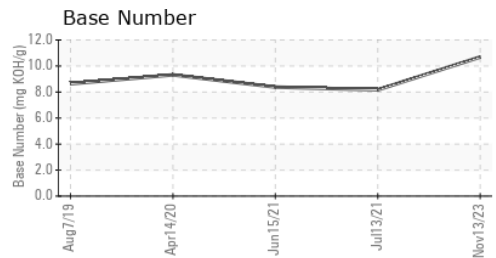
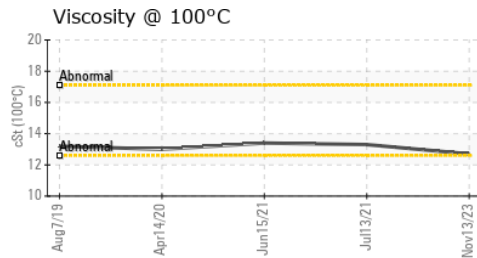
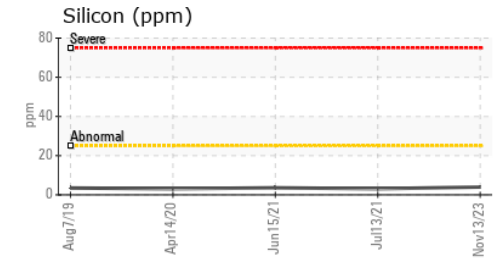
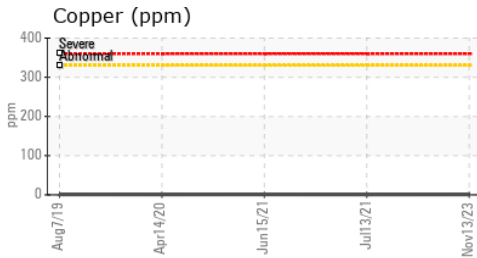
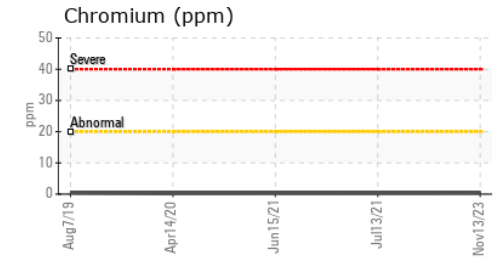
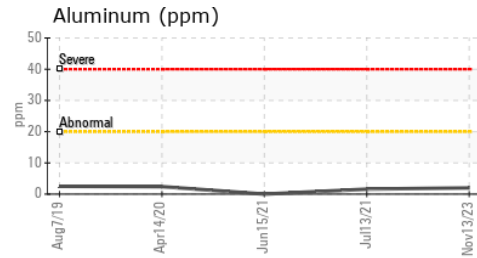
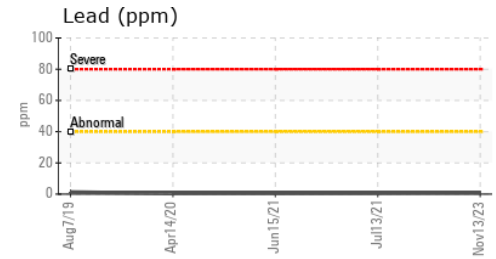
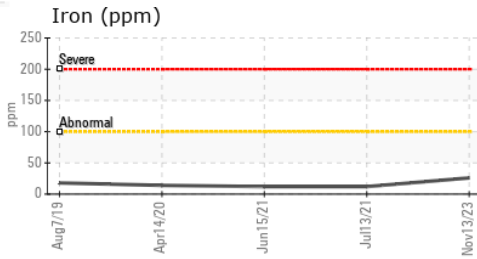
# OIL ANALYSIS REPORT



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	<b>12.7</b>	13.3	13.4

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RW0004867 **Received** : 24 Nov 2023  
**Lab Number** : 06016657 **Diagnosed** : 28 Nov 2023  
**Unique Number** : 10755801 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2

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 US 49442  
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 T: (231)206-6131  
 F: (231)724-4090

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)