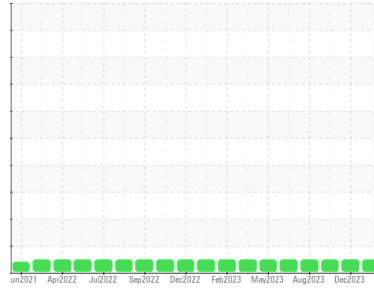


# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**Plymouth & Brockton**  
Machine Id  
**440**

Component  
**Diesel Engine**  
Fluid

**PETRO CANADA DURON SHP 15W40 (36 QTS)**

## 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>PCA0110053</b>	PCA0104397	PCA0098613
Sample Date	Client Info		<b>08 Feb 2024</b>	22 Dec 2023	10 Nov 2023
Machine Age	mls	Client Info	<b>227020</b>	215629	204424
Oil Age	mls	Client Info	<b>24000</b>	12000	24000
Oil Changed	Client Info		<b>Changed</b>	Not Changd	Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<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 >165	<b>19</b>	9	15
Chromium	ppm	ASTM D5185m >5	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m >2	<b>1</b>	1	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>1</b>	2	<1
Lead	ppm	ASTM D5185m >150	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m >90	<b>&lt;1</b>	1	0
Tin	ppm	ASTM D5185m >5	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>10</b>	19	0
Barium	ppm	ASTM D5185m 0	<b>3</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>63</b>	60	60
Manganese	ppm	ASTM D5185m 0	<b>0</b>	<1	0
Magnesium	ppm	ASTM D5185m 1010	<b>864</b>	928	1016
Calcium	ppm	ASTM D5185m 1070	<b>1064</b>	1054	1245
Phosphorus	ppm	ASTM D5185m 1150	<b>940</b>	1016	1144
Zinc	ppm	ASTM D5185m 1270	<b>1148</b>	1246	1522
Sulfur	ppm	ASTM D5185m 2060	<b>3144</b>	3172	3331

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >35	<b>3</b>	3	3
Sodium	ppm	ASTM D5185m	<b>0</b>	1	1
Potassium	ppm	ASTM D5185m >20	<b>2</b>	1	0

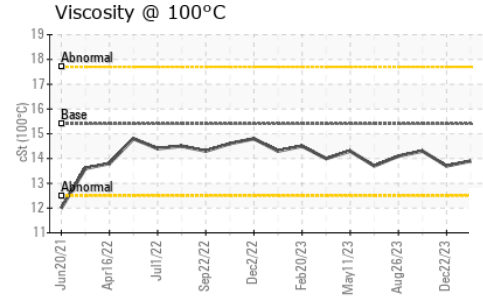
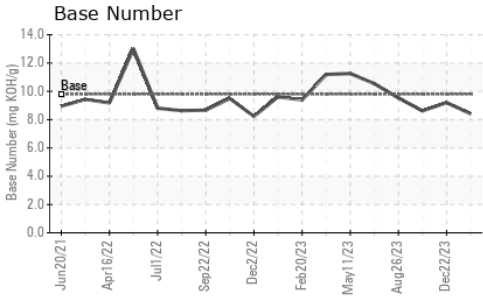
## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >7.5	<b>2.7</b>	1.4	2.4
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.9</b>	7.1	10.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>23.1</b>	19.4	23.4

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.6</b>	12.9	16.2
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.41</b>	9.20	8.62

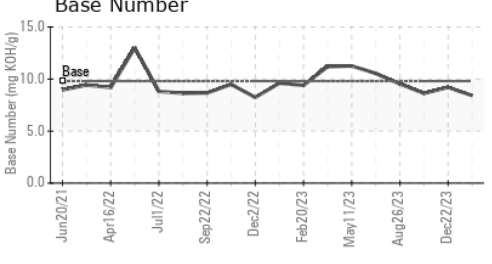
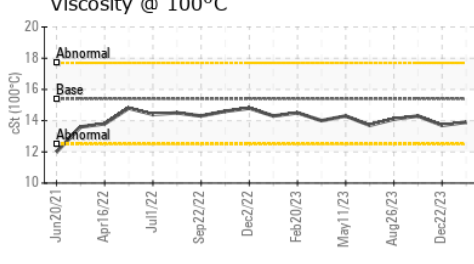
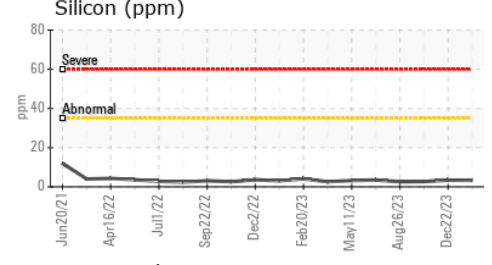
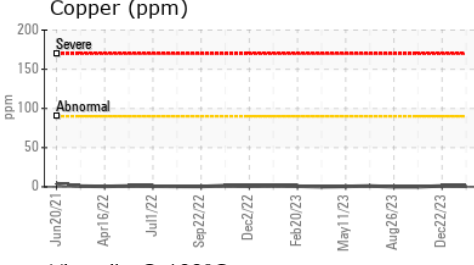
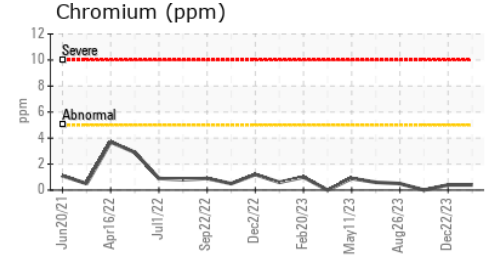
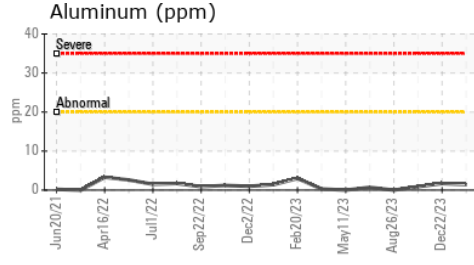
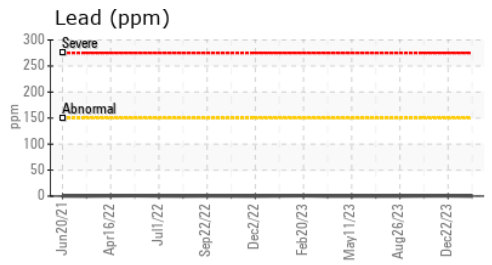
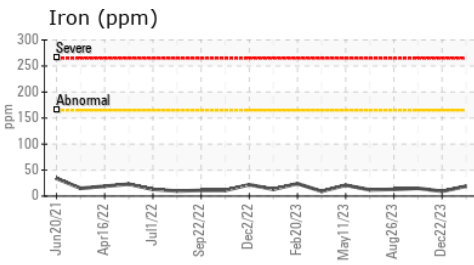
# OIL ANALYSIS REPORT



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	15.4	<b>13.9</b>	13.7	14.3

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0110053  
**Lab Number** : 06094390  
**Unique Number** : 10887243  
**Test Package** : MOB 2

**PLYMOUTH & BROCKTON**  
 8 INDUSTRIAL PARK RD  
 PLYMOUTH, MA  
 US 02360  
 Contact: Donald Pelquin  
 Dpelquin@P-B.com  
 T: (508)732-6039  
 F: (508)732-6091

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)