

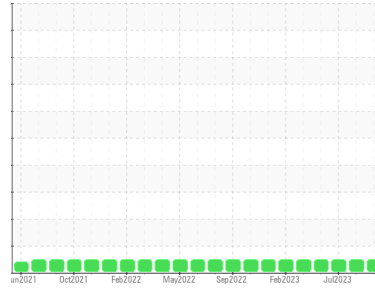
# OIL ANALYSIS REPORT

## Sample Rating Trend

**NORMAL**



Area  
**Plymouth & Brockton**  
 Machine Id  
**11438**  
 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>PCA0090720</b>	PCA0098700	PCA0013375
Sample Date	Client Info		<b>01 Nov 2023</b>	16 Sep 2023	26 Jul 2023
Machine Age	mls	Client Info	<b>275304</b>	263760	251637
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
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >165	<b>16</b>	10	12
Chromium	ppm	ASTM D5185m >5	<b>2</b>	2	<1
Nickel	ppm	ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m >2	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	1	<1
Lead	ppm	ASTM D5185m >150	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >90	<b>0</b>	<1	<1
Tin	ppm	ASTM D5185m >5	<b>0</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 0	<b>5</b>	4	8
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>59</b>	59	62
Manganese	ppm	ASTM D5185m 0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>874</b>	965	901
Calcium	ppm	ASTM D5185m 1070	<b>1092</b>	1147	1193
Phosphorus	ppm	ASTM D5185m 1150	<b>933</b>	1060	974
Zinc	ppm	ASTM D5185m 1270	<b>1215</b>	1303	1244
Sulfur	ppm	ASTM D5185m 2060	<b>2818</b>	3170	3531

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >35	<b>4</b>	3	3
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	2
Potassium	ppm	ASTM D5185m >20	<b>0</b>	0	2

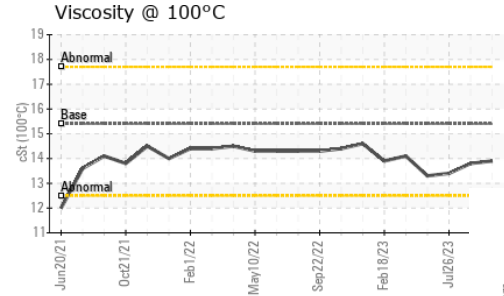
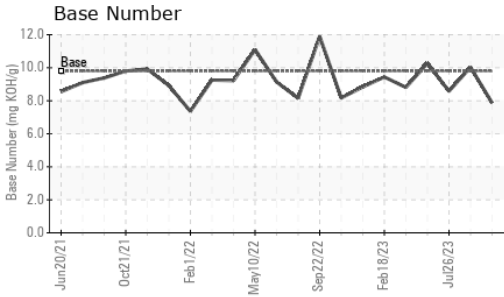
## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >7.5	<b>1.8</b>	1.1	1.3
Nitration	Abs/cm	*ASTM D7624 >20	<b>10.5</b>	8.4	9.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>23.7</b>	20.5	20.6

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>17.7</b>	15.0	15.1
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.87</b>	10.03	8.58

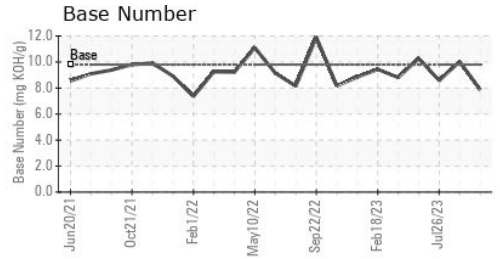
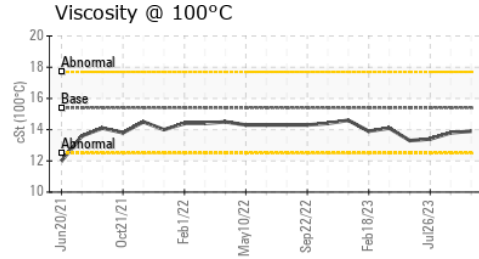
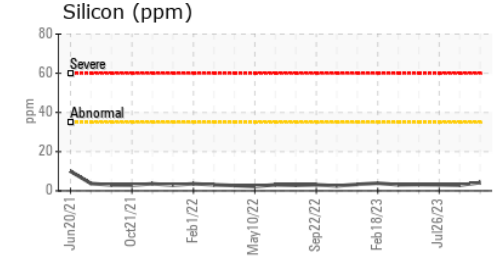
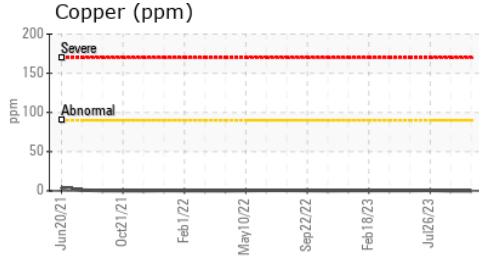
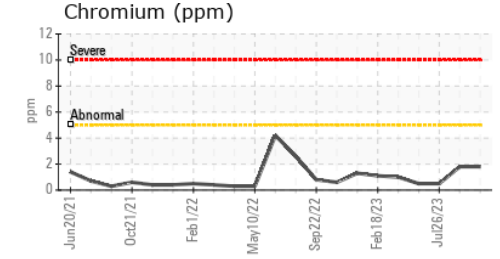
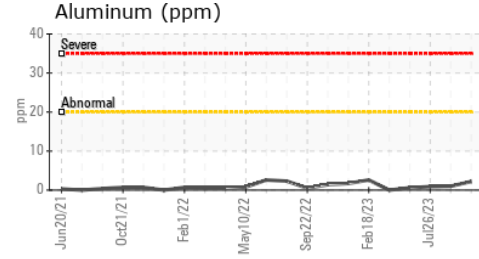
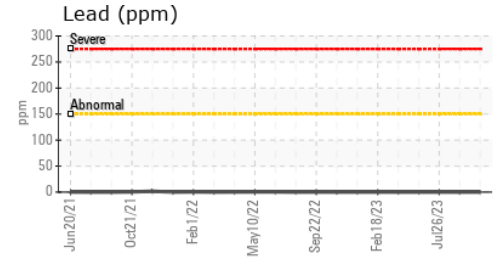
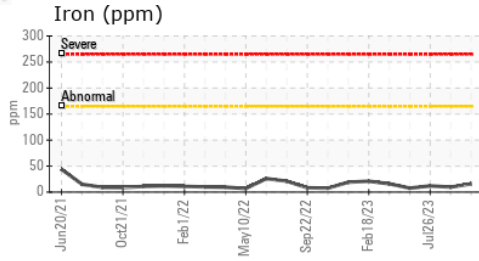
# OIL ANALYSIS REPORT



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>	13.8	13.4

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0090720 **Received** : 08 Nov 2023  
**Lab Number** : 06001774 **Diagnosed** : 10 Nov 2023  
**Unique Number** : 10735536 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2

**PLYMOUTH & BROCKTON**  
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 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)