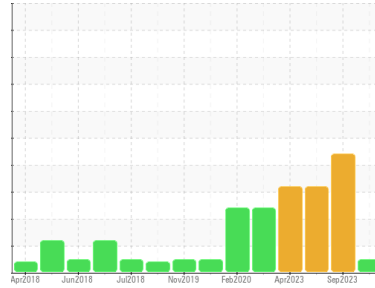


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
Plymouth & Brockton [11398]
 Machine Id
11398
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (39 QTS)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. 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	PCA0104408	PCA0104406	PCA0090628	
Sample Date	Client Info	27 Oct 2023	30 Sep 2023	16 Aug 2023	
Machine Age	mls	Client Info	456933	455972	425462
Oil Age	mls	Client Info	6000	12000	12000
Oil Changed	Client Info	Changed	Not Changd	Not Changd	
Sample Status		NORMAL	SEVERE	SEVERE	

CONTAMINATION

method	limit/base	current	history1	history2	
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185m	>200	5	67	60
Chromium	ppm	ASTM D5185m	>10	<1	2	2
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>30	<1	3	5
Lead	ppm	ASTM D5185m	>30	2	10	11
Copper	ppm	ASTM D5185m	>30	0	2	2
Tin	ppm	ASTM D5185m	>4	<1	2	2
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES

method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185m	0	8	3	4
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	60	45	54
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	969	681	874
Calcium	ppm	ASTM D5185m	1070	1082	845	1033
Phosphorus	ppm	ASTM D5185m	1150	1071	724	918
Zinc	ppm	ASTM D5185m	1270	1308	885	1136
Sulfur	ppm	ASTM D5185m	2060	3179	2049	3456

CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	>30	3	4	5
Sodium	ppm	ASTM D5185m		0	5	4
Potassium	ppm	ASTM D5185m	>20	0	<1	1
Fuel	%	ASTM D3524	>3.0	0.5	10.6	9.9

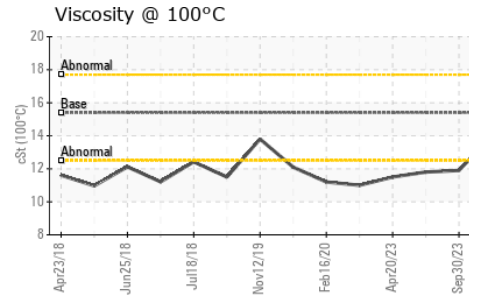
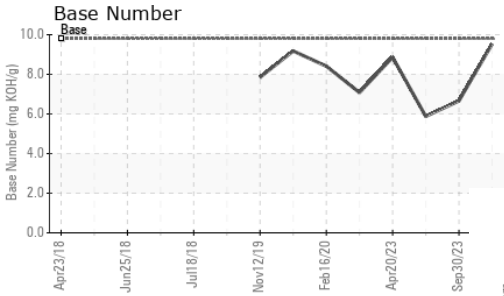
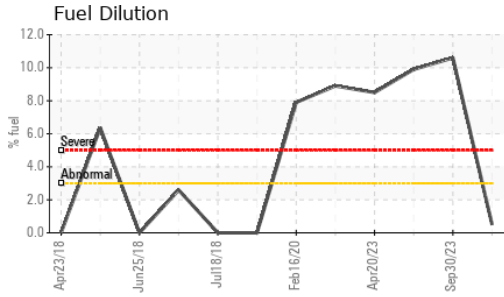
INFRA-RED

method	limit/base	current	history1	history2		
Soot %	%	*ASTM D7844	>3	0.2	5	4.1
Nitration	Abs/cm	*ASTM D7624	>20	6.9	17.2	13.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.4	33.7	26.8

FLUID DEGRADATION

method	limit/base	current	history1	history2		
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.6	23.9	15.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.53	6.66	5.88

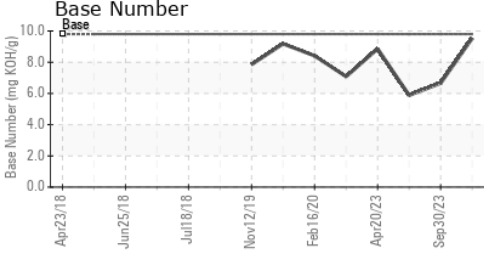
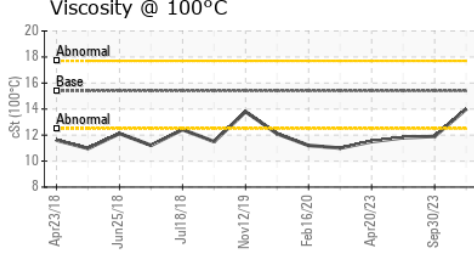
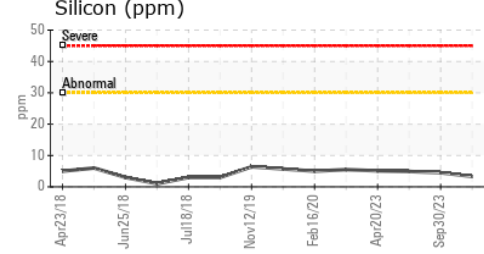
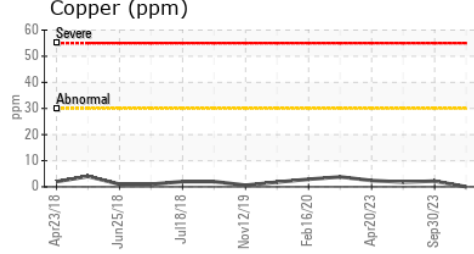
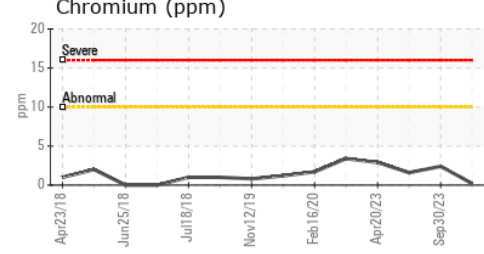
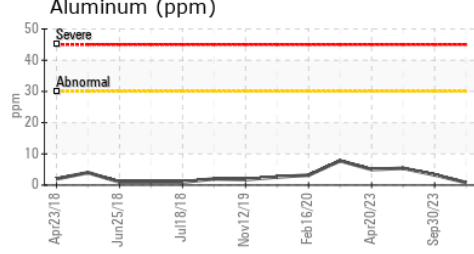
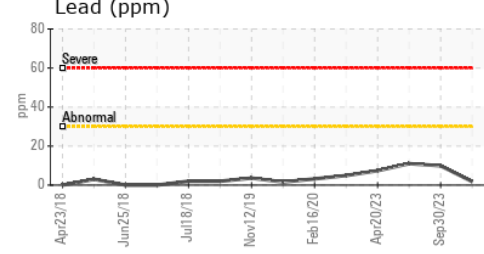
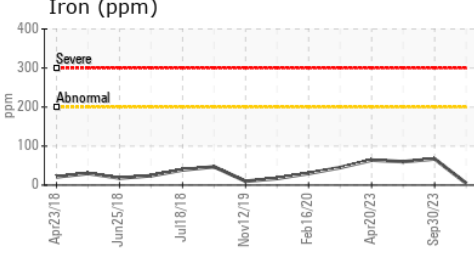
OIL ANALYSIS REPORT



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	14.0	▲ 11.9	▲ 11.8

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0104408 **Received** : 16 Nov 2023
Lab Number : **06010286** **Diagnosed** : 20 Nov 2023
Unique Number : 10749430 **Diagnostician** : Wes Davis
Test Package : MOB 2 (Additional Tests: PercentFuel)

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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)