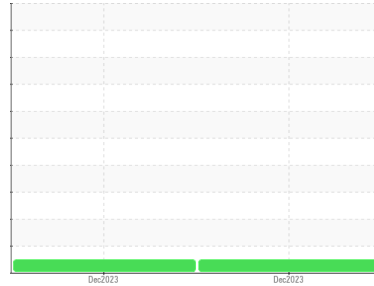


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
DHP15BLKBOTTOM

Component
1 New (Unused) Oil

Fluid
PETRO CANADA DURON HP 15W40 (--- LTR)

DIAGNOSIS

Recommendation

This is a baseline read-out on the submitted sample.

Wear

{not applicable}

Contamination

{not applicable}

Fluid Condition

{not applicable}

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PC	PC	---
Sample Date	Client Info		13 Dec 2023	06 Dec 2023	---
Machine Age	hrs	Client Info	0	0	---
Oil Age	hrs	Client Info	0	0	---
Oil Changed	Client Info		N/A	N/A	---
Sample Status			NORMAL	NORMAL	---

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method		NEG	NEG	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	<1	<1	---
Chromium	ppm	ASTM D5185(m)	0	0	---
Nickel	ppm	ASTM D5185(m)	0	0	---
Titanium	ppm	ASTM D5185(m)	0	0	---
Silver	ppm	ASTM D5185(m)	0	0	---
Aluminum	ppm	ASTM D5185(m)	1	1	---
Lead	ppm	ASTM D5185(m)	0	0	---
Copper	ppm	ASTM D5185(m)	<1	0	---
Tin	ppm	ASTM D5185(m)	0	0	---
Antimony	ppm	ASTM D5185(m)	0	0	---
Vanadium	ppm	ASTM D5185(m)	0	0	---
Beryllium	ppm	ASTM D5185(m)	0	0	---
Cadmium	ppm	ASTM D5185(m)	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	1	<1
Barium	ppm	ASTM D5185(m)	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	59	56
Manganese	ppm	ASTM D5185(m)	0	0	0
Magnesium	ppm	ASTM D5185(m)	1010	1020	970
Calcium	ppm	ASTM D5185(m)	1070	1040	980
Phosphorus	ppm	ASTM D5185(m)	1150	1090	1050
Zinc	ppm	ASTM D5185(m)	1270	1200	1160
Sulfur	ppm	ASTM D5185(m)	2060	2900	2790
Lithium	ppm	ASTM D5185(m)		<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)		4	4
Sodium	ppm	ASTM D5185(m)		2	<1
Potassium	ppm	ASTM D5185(m)	>20	6	<1

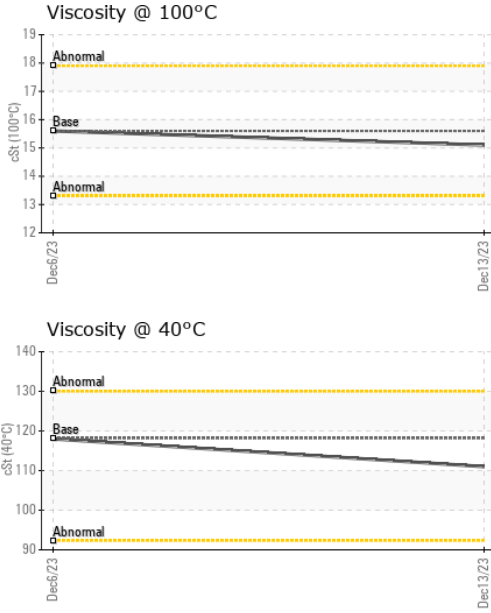
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		0	0
Nitration	Abs/cm	ASTM D7624*		4.1	4.0
Sulfation	Abs./1mm	ASTM D7415*		17.5	17.6

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*		12.6	12.6

OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	---
Emulsified Water	scalar	Visual*	NEG	NEG	---
Free Water	scalar	Visual*	NEG	NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	118.2	111	118	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	15.1	15.6	---
Viscosity Index (VI)	Scale	ASTM D2270*	139	141	139	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					no image
Bottom					no image

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **Petro-Canada Technical/Nick Finelli**
Sample No. : PC **Recieved** : 22 Dec 2023
Lab Number : **02604935** **Diagnosed** : 28 Dec 2023
Unique Number : 5698020 **Diagnostician** : Kevin Marson
Test Package : TEST (Additional Tests: FT-IR, ICP, ICP-NEW OIL, KV100, KV40, Spat, VI)

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

Mississauga, ON
 CA L5J 1K2
 Contact: Nick Finelli
 nick.finelli@hfsinclair.com
 T:
 F: (877)352-8916