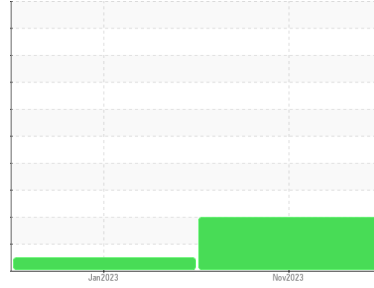


Area
Tractors
Machine Id
UTL003

Component
Diesel Engine
Fluid

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



DIAGNOSIS

Recommendation

We advise that you check all areas where contaminants can enter the system. We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. We suspect that the abnormal contaminant(s) is the result of incorrect sampling technique. **DISCLAIMER:** Interpretation of results is based on the sample as received from the customer. The condition of the sample and the method of sampling cannot be verified.

Wear

All component wear rates are normal.

Contamination

Light concentration of visible dirt/debris present in the oil. There is a moderate concentration of dirt present in the oil.

Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PC0075073	PC0067296	---
Sample Date	Client Info			14 Nov 2023	25 Jan 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				ABNORMAL	NORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<1.0	<1.0	---
Water	WC Method	>0.2		NEG	NEG	---
Glycol	WC Method			NEG	NEG	---

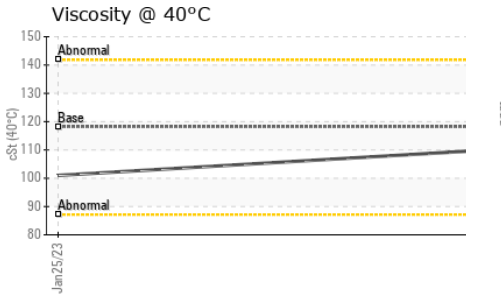
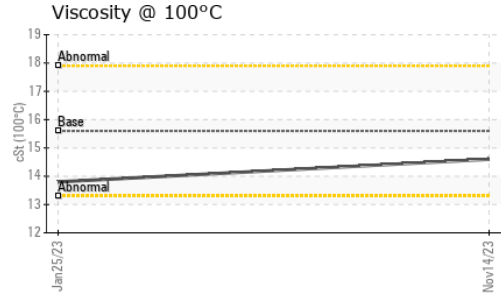
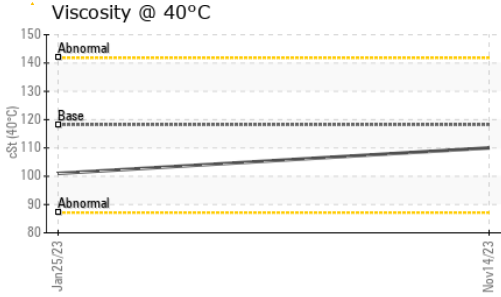
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	39	12	---
Chromium	ppm	ASTM D5185(m)	>20	2	<1	---
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	---
Titanium	ppm	ASTM D5185(m)		0	<1	---
Silver	ppm	ASTM D5185(m)	>3	<1	0	---
Aluminum	ppm	ASTM D5185(m)	>20	8	2	---
Lead	ppm	ASTM D5185(m)	>40	<1	<1	---
Copper	ppm	ASTM D5185(m)	>330	3	2	---
Tin	ppm	ASTM D5185(m)	>15	<1	<1	---
Antimony	ppm	ASTM D5185(m)		0	<1	---
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	2	4	---
Barium	ppm	ASTM D5185(m)	0	<1	0	---
Molybdenum	ppm	ASTM D5185(m)	60	59	59	---
Manganese	ppm	ASTM D5185(m)	0	<1	<1	---
Magnesium	ppm	ASTM D5185(m)	1010	969	967	---
Calcium	ppm	ASTM D5185(m)	1070	1111	1274	---
Phosphorus	ppm	ASTM D5185(m)	1150	1029	1137	---
Zinc	ppm	ASTM D5185(m)	1270	1239	1270	---
Sulfur	ppm	ASTM D5185(m)	2060	2591	2764	---
Lithium	ppm	ASTM D5185(m)		<1	<1	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	▲ 49	6	---
Sodium	ppm	ASTM D5185(m)		6	2	---
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0.3	0	---
Nitration	Abs/cm	ASTM D7624*	>20	8.5	5.9	---
Sulfation	Abs.1mm	ASTM D7415*	>30	21.6	17.3	---

OIL ANALYSIS REPORT

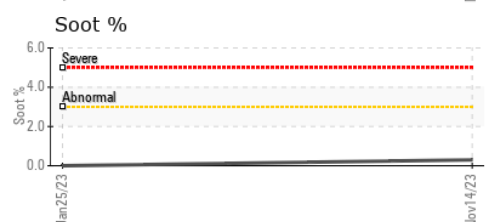
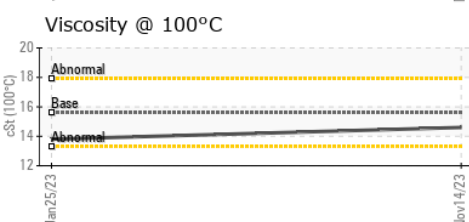
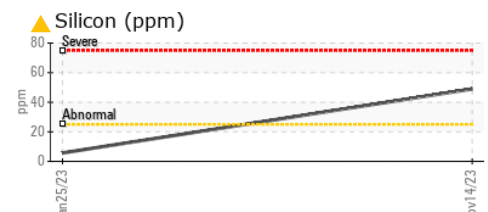
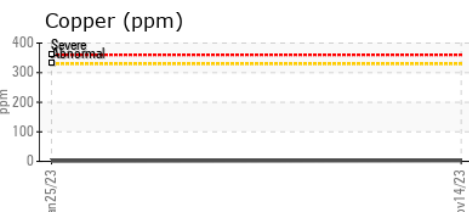
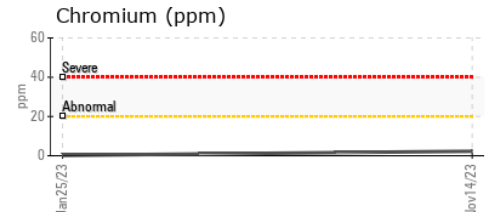
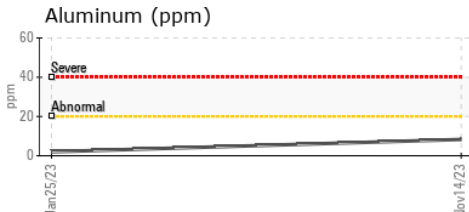
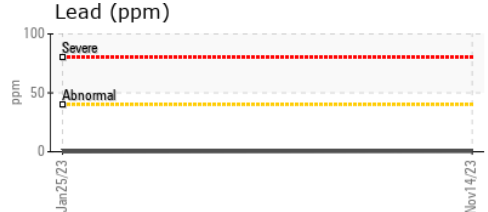
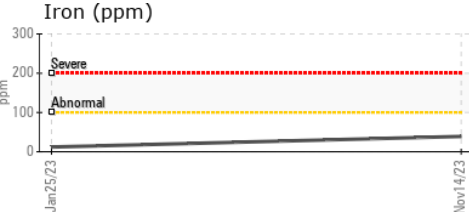


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	18.3	10.9	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	VLITE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	▲ LIGHT	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	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 @ 40°C	cSt	ASTM D7279(m)	118.2	110	101	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	14.6	13.8	---
Viscosity Index (VI)	Scale	ASTM D2270*	139	136	137	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0075073
Lab Number : 02597764
Unique Number : 5682844
Test Package : MOB 1 (Additional Tests: BottomAnalysis, FILTERPATCH, KV40, VI, Visual)

Lakeshore Gold Timmins West
 Timmins, ON
 CA
 Contact: Adam Koscielak
 adam.koscielak@HFSinclair.com

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.