



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area

Loader

Machine Id

SRF0110

Component

Diesel Engine

Fluid

PETRO CANADA DURON HP 15W40 (37 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0084759	PC0074863	PC0074874
Sample Date		Client Info		25 Jun 2024	14 Feb 2024	21 Nov 2023
Machine Age	hrs	Client Info		32307	30232	28756
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	3	17	11
Chromium	ppm	ASTM D5185(m)	>20	0	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	0	0	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>25	<1	1	2
Lead	ppm	ASTM D5185(m)	>40	0	1	<1
Copper	ppm	ASTM D5185(m)	>330	<1	4	4
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

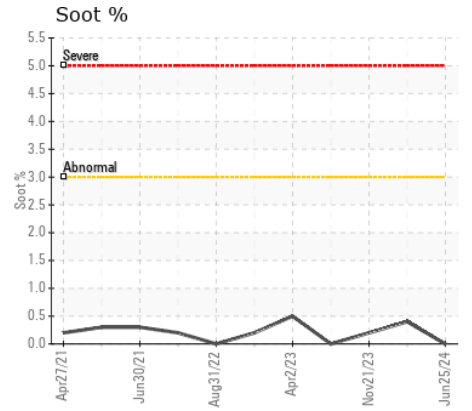
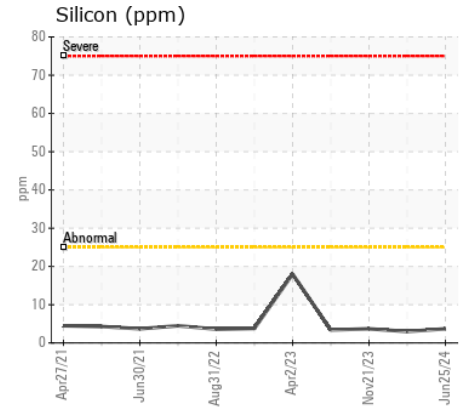
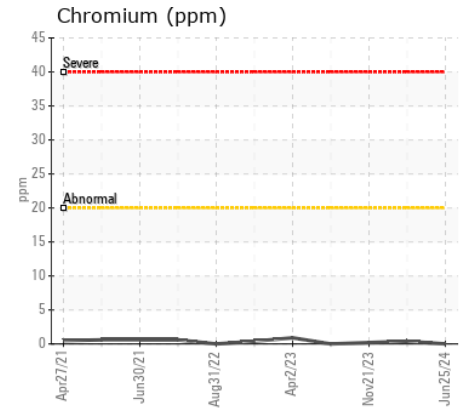
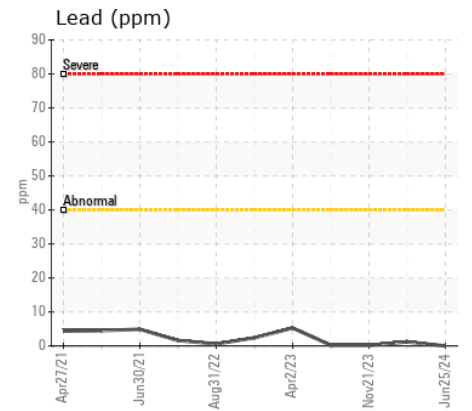
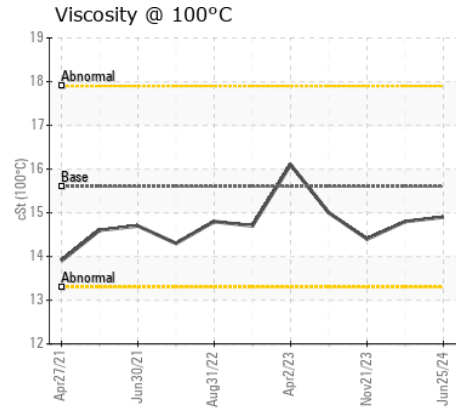
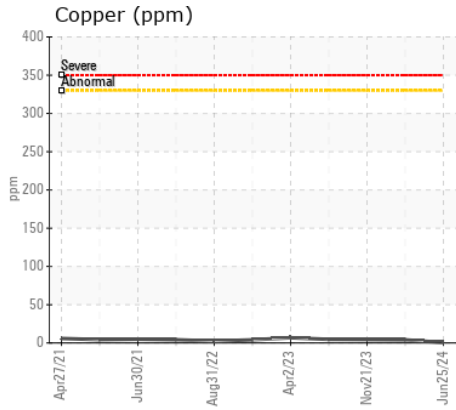
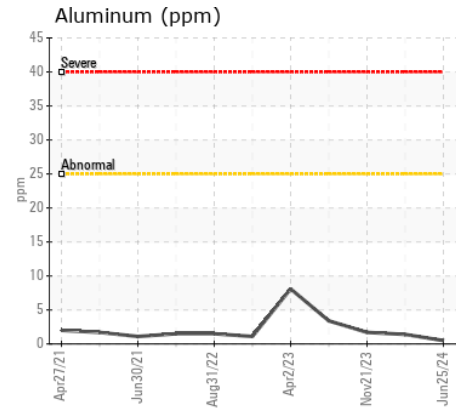
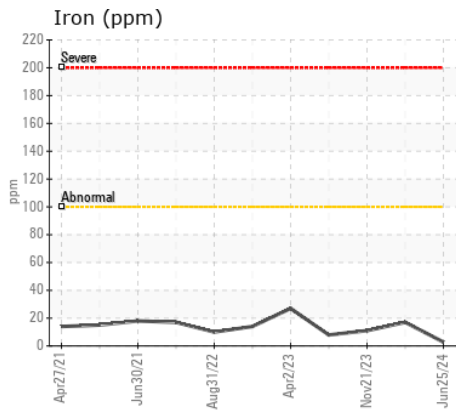
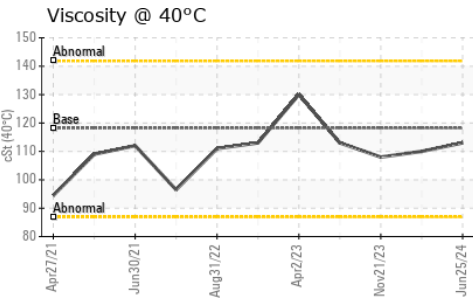
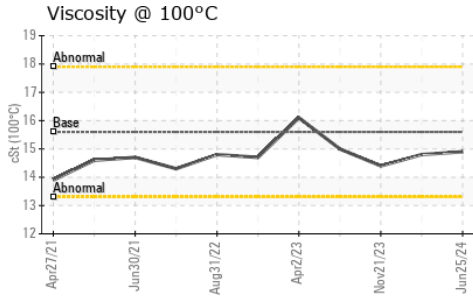
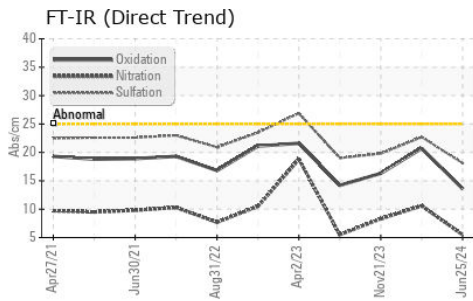
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	4	3	4
Potassium	ppm	ASTM D5185(m)	>20	1	9	<1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	0.0	NEG
Soot %	%	ASTM D7844*	>3	0	0.4	0.2
Nitration	Abs/cm	ASTM D7624*	>20	5.5	10.6	8.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.1	22.7	19.8
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		4	15	27
Boron	ppm	ASTM D5185(m)	0	1	2	2
Barium	ppm	ASTM D5185(m)	0	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	57	65	64
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	1010	930	1029	987
Calcium	ppm	ASTM D5185(m)	1070	1012	1196	1093
Phosphorus	ppm	ASTM D5185(m)	1150	987	1106	1043
Zinc	ppm	ASTM D5185(m)	1270	1178	1303	1255
Sulfur	ppm	ASTM D5185(m)	2060	2561	2827	2652
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.6	20.7	16.3
Visc @ 40°C	cSt	ASTM D7279(m)	118.2	113	110	108
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	14.9	14.8	14.4
Viscosity Index (VI)	Scale	ASTM D2270*	139	136	139	136



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0084759
Lab Number : 02645814
Unique Number : 5803353
Test Package : MOB 1 (Additional Tests: KV40, VI)

Received : 05 Jul 2024
Tested : 05 Jul 2024
Diagnosed : 05 Jul 2024 - Wes Davis

Lakeshore Gold Timmins West

Timmins, ON
CA

Contact: Dale Arseneau
darseneau@ca.panamericansilver.com

T: (705)269-4344

F:

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.