



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
21-59
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON UHP 5W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0081766	PC0081769	PC0066978
Sample Date		Client Info		02 Apr 2024	08 Dec 2023	15 Aug 2023
Machine Age	hrs	Client Info		5278	4704	4100
Oil Age	hrs	Client Info		600	600	600
Filter Age	hrs	Client Info		600	600	600
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>90	15	20	25
Chromium	ppm	ASTM D5185(m)	>20	<1	1	2
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	6	7	9
Lead	ppm	ASTM D5185(m)	>40	0	2	2
Copper	ppm	ASTM D5185(m)	>330	<1	1	1
Tin	ppm	ASTM D5185(m)	>15	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

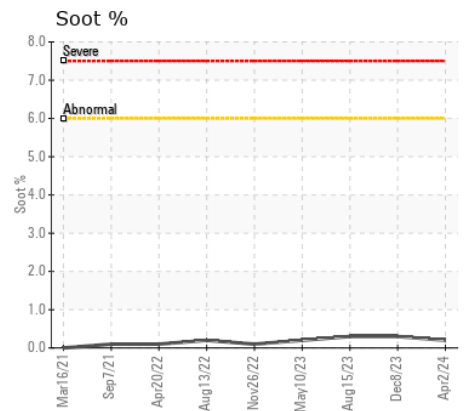
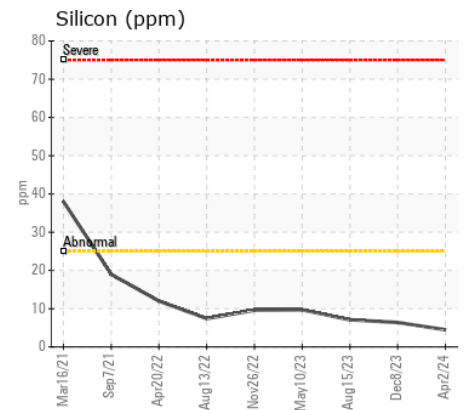
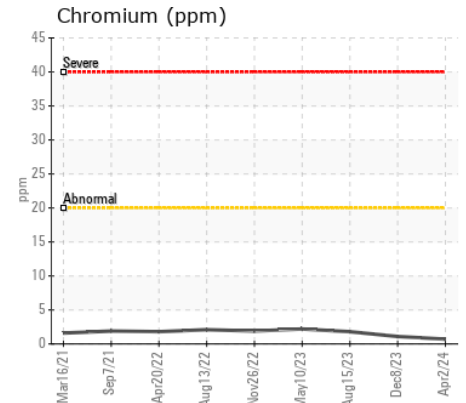
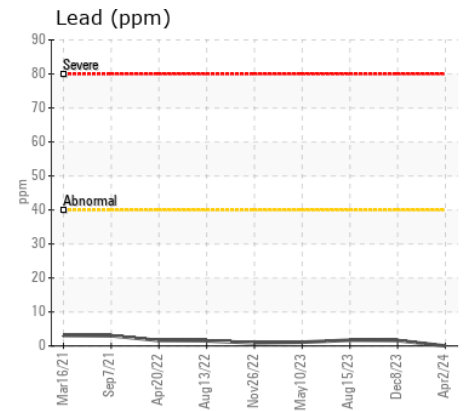
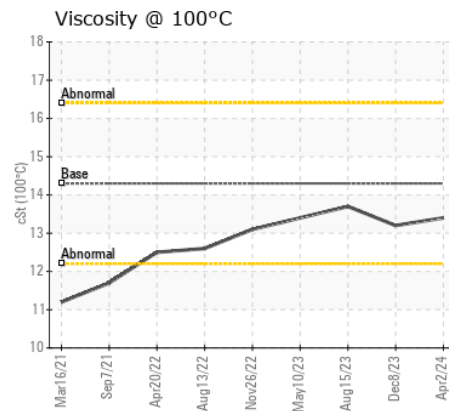
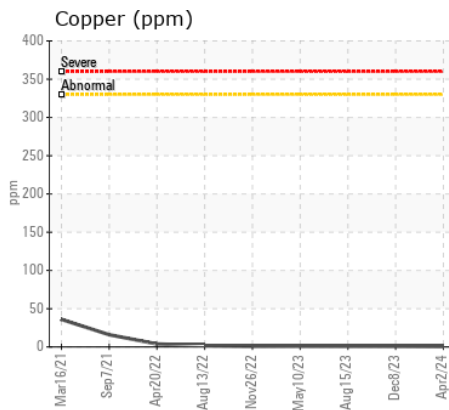
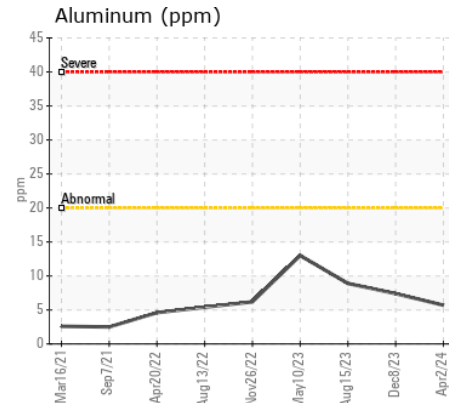
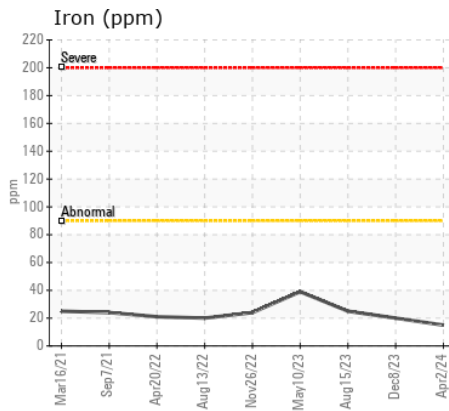
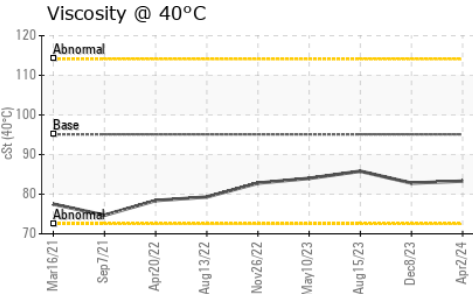
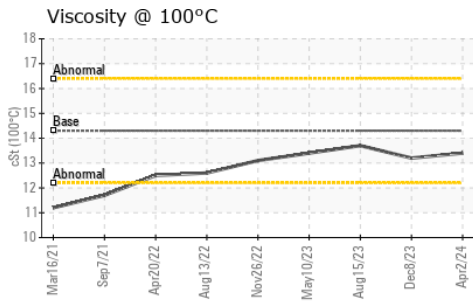
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	4	6	7
Potassium	ppm	ASTM D5185(m)	>20	9	10	15
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>6	0.2	0.3	0.3
Nitration	Abs/cm	ASTM D7624*	>20	10.3	11.4	11.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.7	23.4	24.5
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	5	5
Boron	ppm	ASTM D5185(m)	65	29	25	22
Barium	ppm	ASTM D5185(m)	0	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	65	60	58	64
Manganese	ppm	ASTM D5185(m)	0	0	0	<1
Magnesium	ppm	ASTM D5185(m)	1160	1117	1142	1156
Calcium	ppm	ASTM D5185(m)	820	850	847	879
Phosphorus	ppm	ASTM D5185(m)	1160	993	990	1057
Zinc	ppm	ASTM D5185(m)	1260	1196	1216	1223
Sulfur	ppm	ASTM D5185(m)	3000	2656	2649	2710
Oxidation	Abs/.1mm	ASTM D7414*	>25	20.8	22.8	22.6
Visc @ 40°C	cSt	ASTM D7279(m)	95.1	83.3	82.8	85.8
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	13.4	13.2	13.7
Viscosity Index (VI)	Scale	ASTM D2270*	169	163	161	163



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0081766 **Received** : 03 Apr 2024
Lab Number : 02626400 **Tested** : 03 Apr 2024
Unique Number : 5759532 **Diagnosed** : 03 Apr 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: KV40, VI)

B & A PETROLEUM
 2004 SOUTH SERVICE ROAD WEST, BOX 1583
 SWIFT CURRENT, SK
 CA S9H 5J5
 Contact: DARRYL MEYER
 dmeyer@bapetroleumltd.com
 T: (306)773-8890
 F: (306)773-8443

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.