



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL



Machine Id
417000
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (40 LTR)

RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC956136	WC956145	WC958654
Sample Date		Client Info		03 Jun 2024	31 Jul 2023	02 Feb 2023
Machine Age	hrs	Client Info		12835	353838	324366
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	43	22	10
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	0
Nickel	ppm	ASTM D5185(m)	>5	2	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	<1	<1	<1
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	9	6	3
Lead	ppm	ASTM D5185(m)	>40	2	<1	<1
Copper	ppm	ASTM D5185(m)	>330	3	2	1
Tin	ppm	ASTM D5185(m)	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

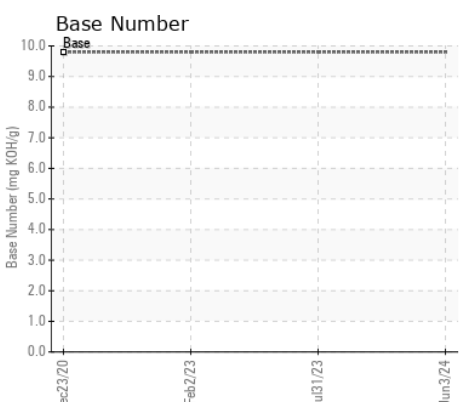
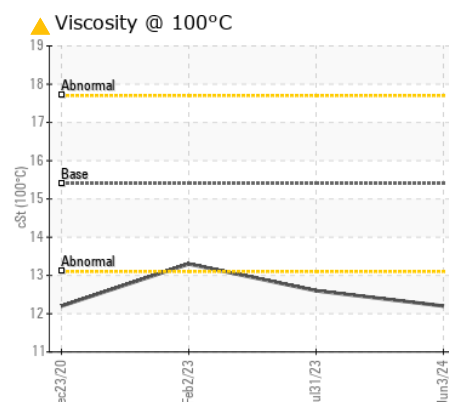
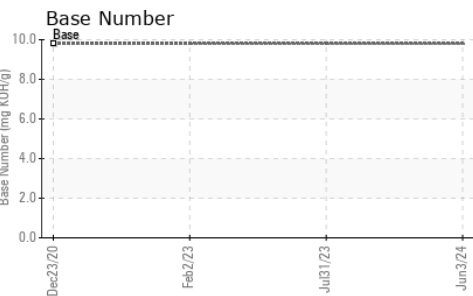
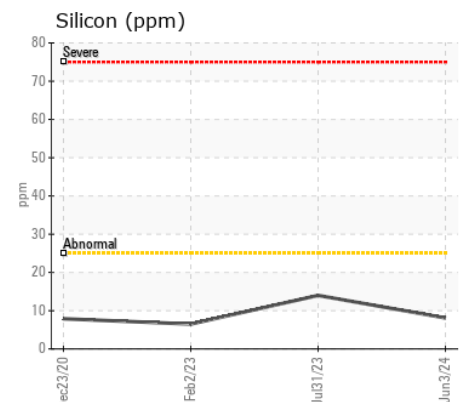
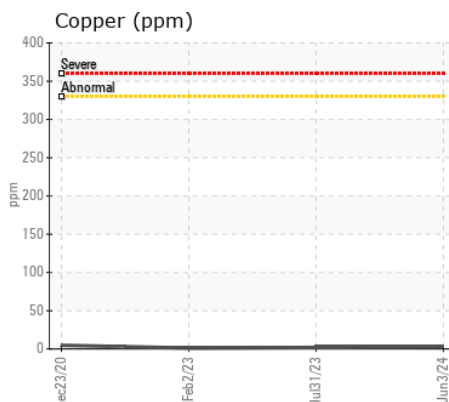
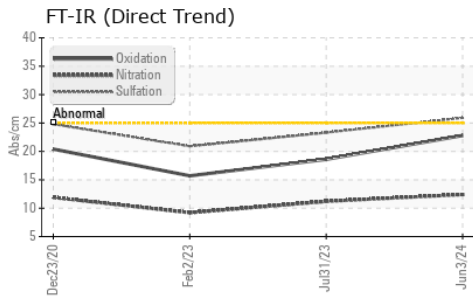
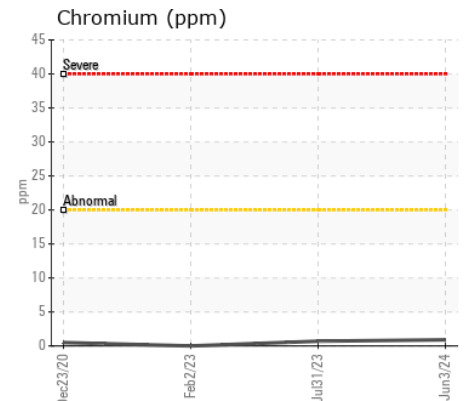
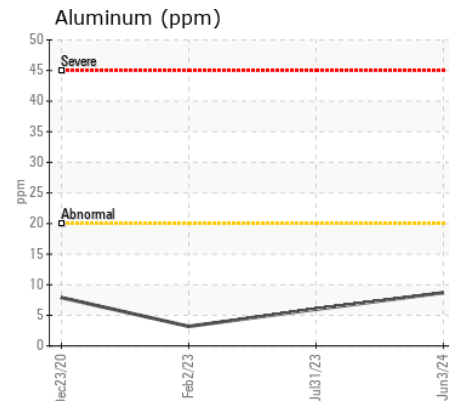
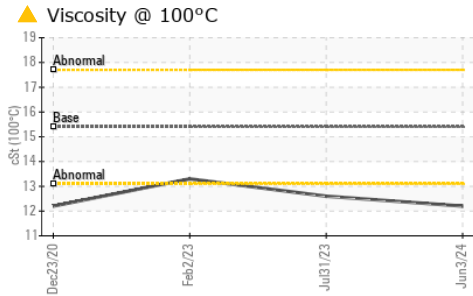
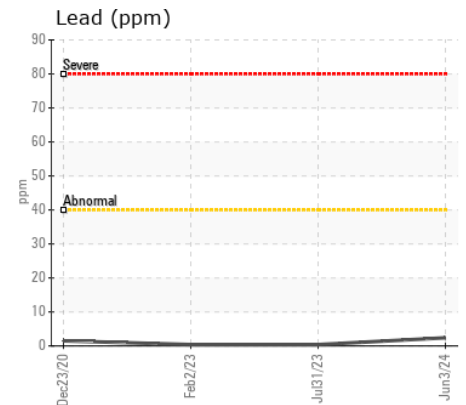
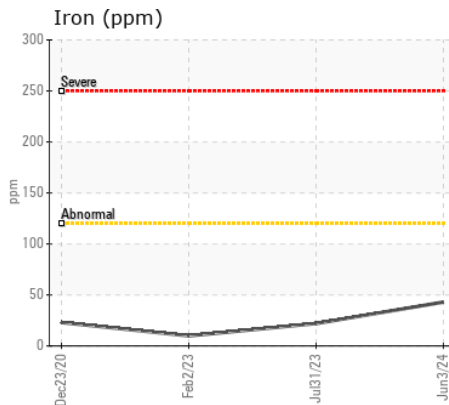
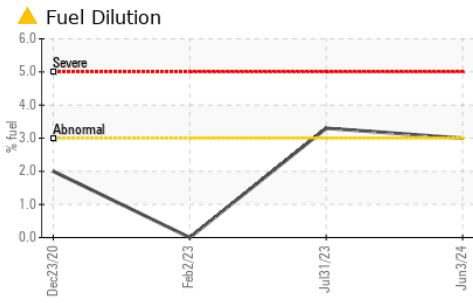
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>25	8	14	6
Potassium	ppm	ASTM D5185(m)	>20	2	3	<1
Fuel	%	ASTM D7593*	>3.0	▲ 3	▲ 3.3	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>4	0.5	0.3	0
Nitration	Abs/cm	ASTM D7624*	>20	12.4	11.2	9.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	25.9	23.3	20.9
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		10	11	6
Boron	ppm	ASTM D5185(m)	0	3	1	2
Barium	ppm	ASTM D5185(m)	0	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	60	59	58	58
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	948	941	950
Calcium	ppm	ASTM D5185(m)	1070	1047	1015	1066
Phosphorus	ppm	ASTM D5185(m)	1150	954	976	1045
Zinc	ppm	ASTM D5185(m)	1270	1159	1160	1166
Sulfur	ppm	ASTM D5185(m)	2060	2063	2412	2564
Oxidation	Abs/.1mm	ASTM D7414*	>25	22.8	18.6	15.7
Base Number (BN)	mg KOH/g	ASTM D2896*	9.8	5.16	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ 12.2	▲ 12.6	13.3



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC956136 **Received** : 10 Jun 2024
Lab Number : 02640685 **Tested** : 11 Jun 2024
Unique Number : 5789847 **Diagnosed** : 11 Jun 2024 - Wes Davis
Test Package : MOB 2 (Additional Tests: PercentFuel)

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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.