



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
DOOSAN DL450 2220804
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON HP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0073055	PC0073057	PC0071390
Sample Date		Client Info		20 Feb 2024	22 Oct 2023	04 Oct 2023
Machine Age	hrs	Client Info		16071	15712	15418
Oil Age	hrs	Client Info		250	250	250
Filter Age	hrs	Client Info		250	250	250
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	4	3	7
Chromium	ppm	ASTM D5185(m)	>20	0	0	<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	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>40	2	1	2
Copper	ppm	ASTM D5185(m)	>330	2	2	2
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

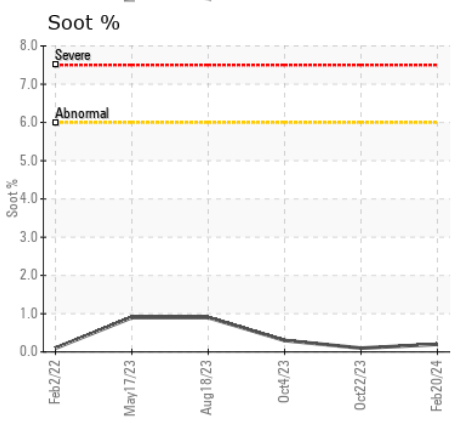
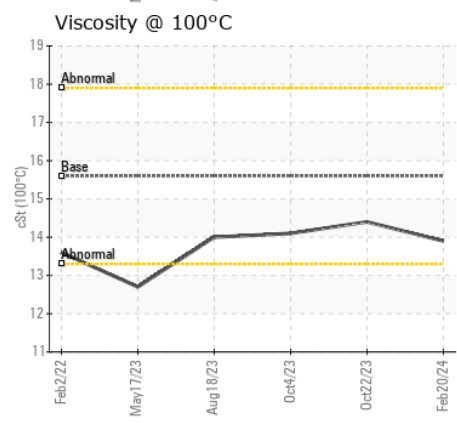
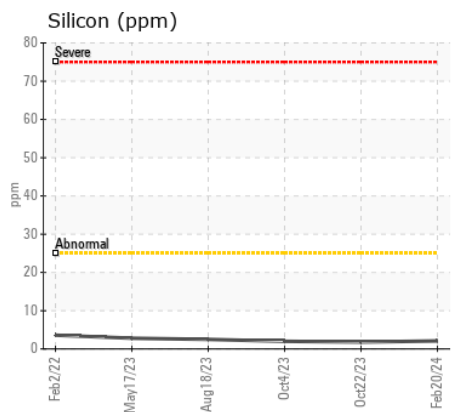
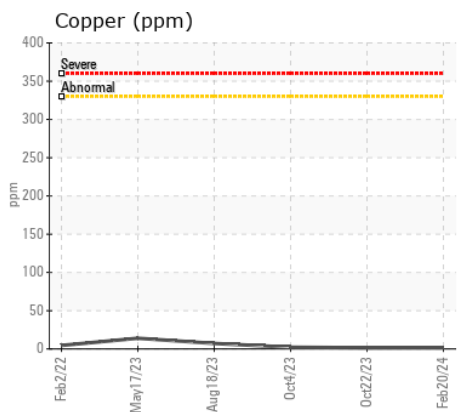
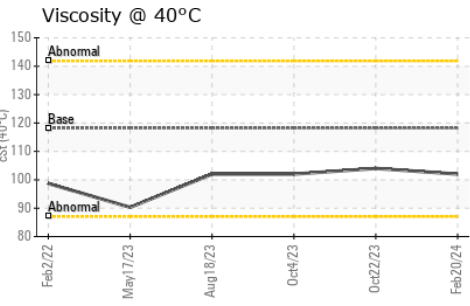
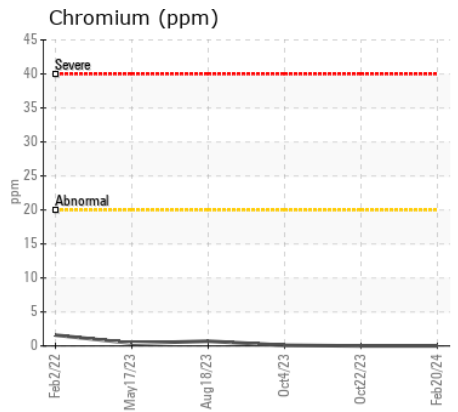
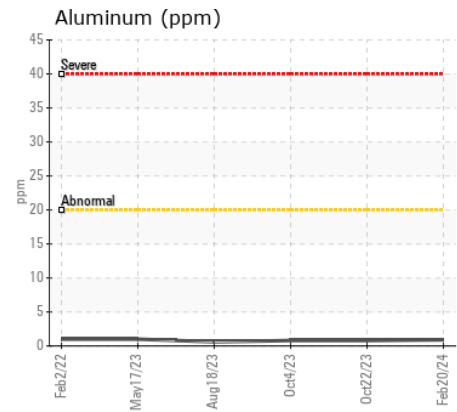
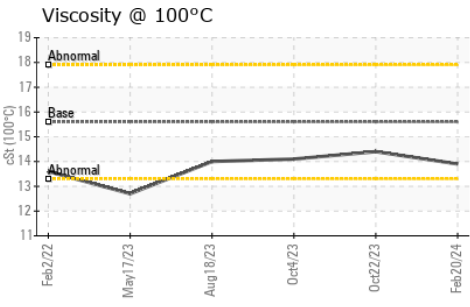
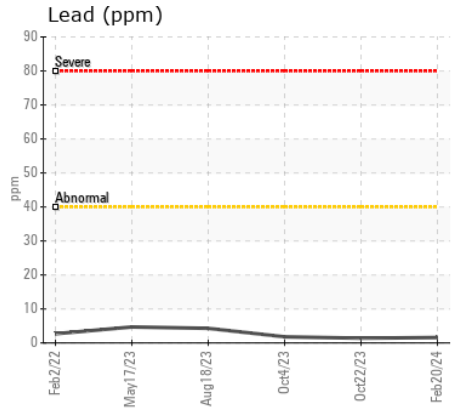
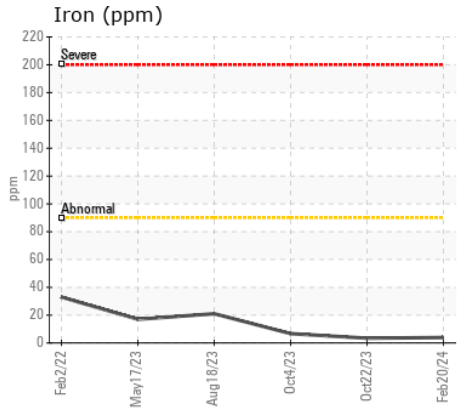
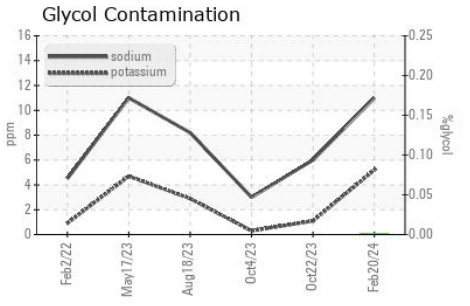
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	2	2	2
Potassium	ppm	ASTM D5185(m)	>20	5	1	<1
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		0.0	NEG	NEG
Soot %	%	ASTM D7844*	>6	0.2	0.1	0.3
Nitration	Abs/cm	ASTM D7624*	>20	6.2	5.4	5.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.6	18.1	18.4
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)		11	6	3
Boron	ppm	ASTM D5185(m)	0	1	<1	2
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	60	57	59
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	1010	955	944	954
Calcium	ppm	ASTM D5185(m)	1070	1033	1004	1014
Phosphorus	ppm	ASTM D5185(m)	1150	1012	1004	999
Zinc	ppm	ASTM D5185(m)	1270	1157	1143	1181
Sulfur	ppm	ASTM D5185(m)	2060	2760	2535	2597
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.8	13.5	13.6
Visc @ 40°C	cSt	ASTM D7279(m)	118.2	102	104	102
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	13.9	14.4	14.1
Viscosity Index (VI)	Scale	ASTM D2270*	139	137	142	140



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0073055 **Received** : 04 Mar 2024
Lab Number : 02619514 **Tested** : 04 Mar 2024
Unique Number : 5736624 **Diagnosed** : 04 Mar 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: Glycol, KV40, 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.

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