



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
60084
 Component
Diesel Engine
 Fluid
VALVOLINE 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0911705	WC0887300	WC0887257
Sample Date		Client Info		17 Jun 2024	12 Mar 2024	07 Dec 2023
Machine Age	kms	Client Info		116417	94783	73072
Oil Age	kms	Client Info		16000	10000	10000
Filter Age	kms	Client Info		16000	10000	10000
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>75	8	11	17
Chromium	ppm	ASTM D5185(m)	>5	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	<1	0	<1
Aluminum	ppm	ASTM D5185(m)	>15	1	1	2
Lead	ppm	ASTM D5185(m)	>25	0	0	<1
Copper	ppm	ASTM D5185(m)	>100	7	2	3
Tin	ppm	ASTM D5185(m)	>4	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

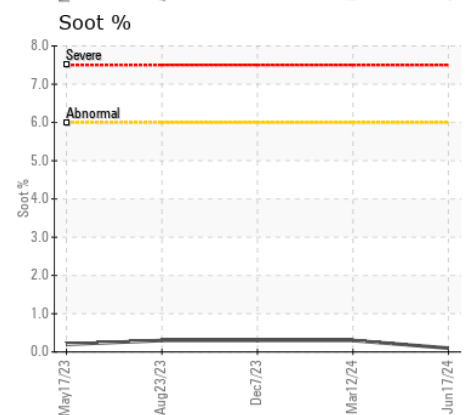
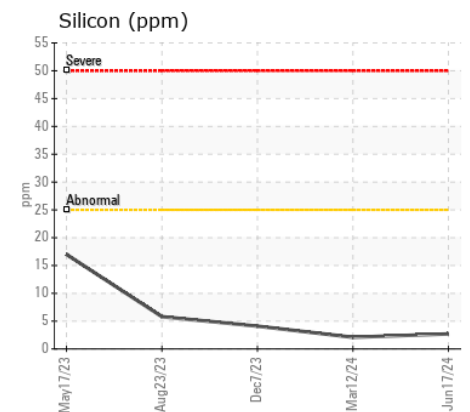
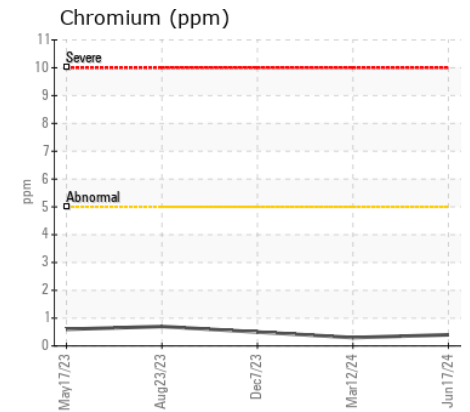
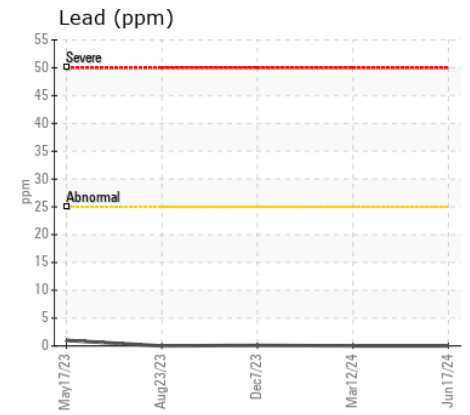
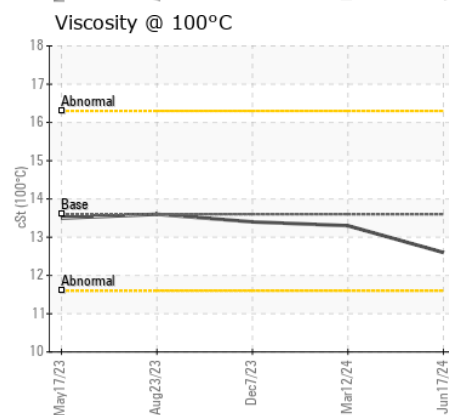
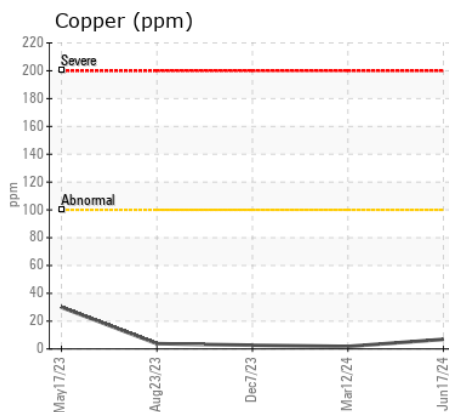
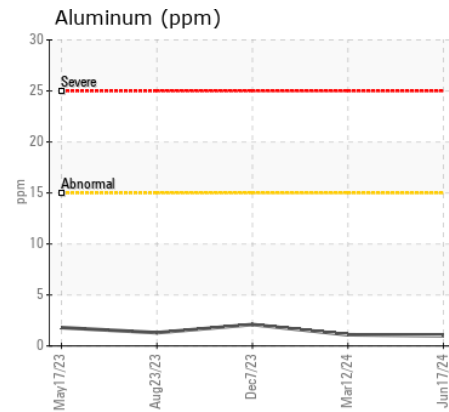
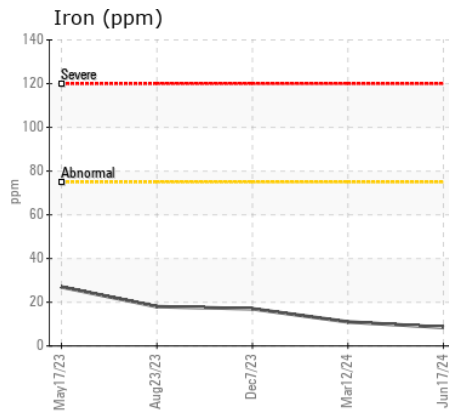
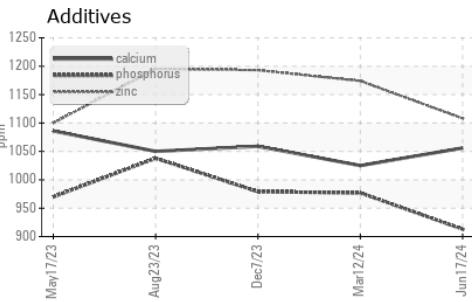
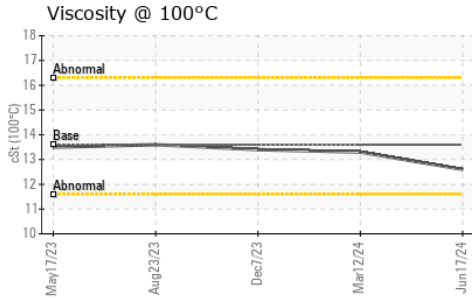
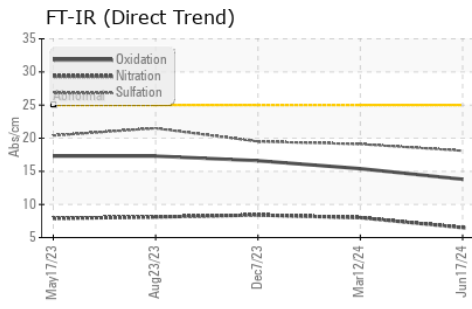
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	3	2	4
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	0
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	0.1	0.3	0.3
Nitration	Abs/cm	ASTM D7624*	>20	6.5	8.0	8.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.1	19.1	19.5
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	4	5
Boron	ppm	ASTM D5185(m)	39	27	2	3
Barium	ppm	ASTM D5185(m)	1	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	49	59	58	60
Manganese	ppm	ASTM D5185(m)	1	<1	0	0
Magnesium	ppm	ASTM D5185(m)	616	851	970	967
Calcium	ppm	ASTM D5185(m)	1554	1056	1025	1059
Phosphorus	ppm	ASTM D5185(m)	899	913	977	979
Zinc	ppm	ASTM D5185(m)	1069	1108	1174	1193
Sulfur	ppm	ASTM D5185(m)	2624	2454	2469	2496
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.8	15.4	16.6
Visc @ 100°C	cSt	ASTM D7279(m)	13.6	12.6	13.3	13.4



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0911705
Lab Number : 02644299
Unique Number : 5801838
Test Package : MOB 1
Received : 27 Jun 2024
Tested : 27 Jun 2024
Diagnosed : 27 Jun 2024 - Wes Davis

CITY OF PETERBOROUGH
 791 WEBBER AVENUE., MUNICIPAL OPERATIONS CENTRE
 PETERBOROUGH, ON
 CA K9J 8N3
 Contact: Bryan Powers
 bpowers@peterborough.ca
 T: (705)745-1386
 F: (705)743-3223

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.