



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[86070]
 Machine Id

51 PARLIAMENT ST TORONTO CITY OF TORONTO 25282172

Component
Rear Diesel Engine

Fluid
ESSO XD-3 EXTRA 15W40 (80 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PN0006113	PN0004786	PN0003542
Sample Date		Client Info		24 May 2024	16 May 2023	11 May 2022
Machine Age	hrs	Client Info		228	217	203
Oil Age	hrs	Client Info		0	0	8
Filter Age	hrs	Client Info		0	0	8
Oil Changed		Client Info		Changed	Not Chngd	Changed
Filter Changed		Client Info		Changed	Not Chngd	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>90	2	3	2
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>2	0	0	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	2	<1
Aluminum	ppm	ASTM D5185(m)	>20	1	2	3
Lead	ppm	ASTM D5185(m)	>40	0	<1	<1
Copper	ppm	ASTM D5185(m)	>330	5	6	4
Tin	ppm	ASTM D5185(m)	>15	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

There is no indication of any contamination in the oil.

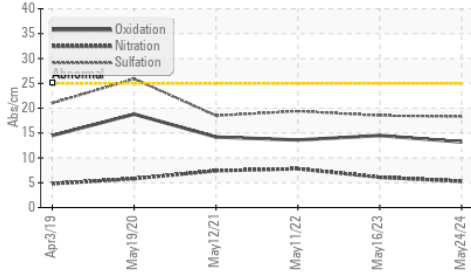
Silicon	ppm	ASTM D5185(m)	>25	1	4	5
Potassium	ppm	ASTM D5185(m)	>20	2	<1	<1
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>6	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	5.3	6.1	7.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.3	18.5	19.4
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

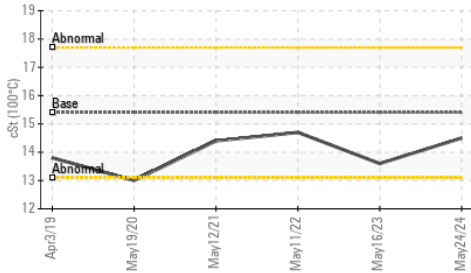
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)	>192	2	2	2
Boron	ppm	ASTM D5185(m)		19	39	75
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		49	66	83
Manganese	ppm	ASTM D5185(m)		0	<1	0
Magnesium	ppm	ASTM D5185(m)		753	511	28
Calcium	ppm	ASTM D5185(m)	3780	1295	1655	2091
Phosphorus	ppm	ASTM D5185(m)	1370	1018	1057	1057
Zinc	ppm	ASTM D5185(m)	1500	1155	1102	1144
Sulfur	ppm	ASTM D5185(m)	3800	2759	2868	3259
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.2	14.5	13.6
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	14.5	13.6	14.7

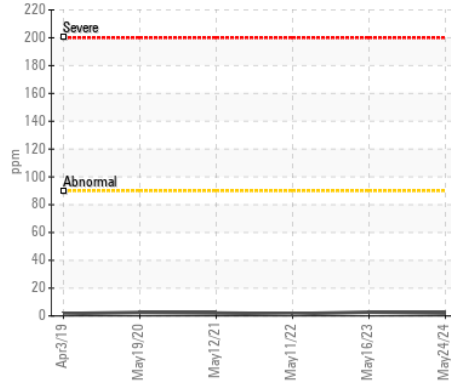
FT-IR (Direct Trend)



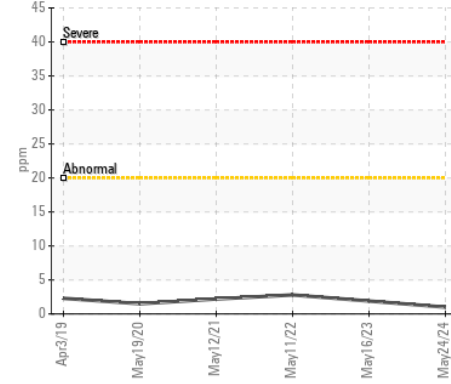
Viscosity @ 100°C



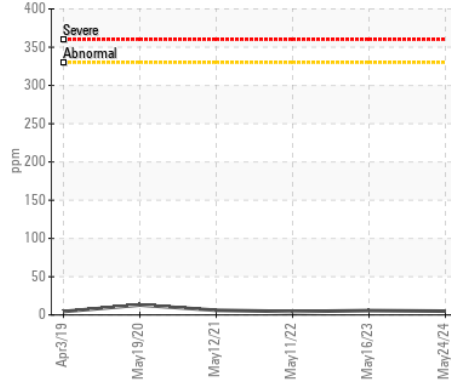
Iron (ppm)



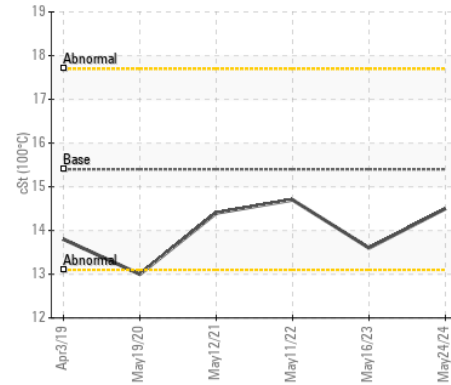
Aluminum (ppm)



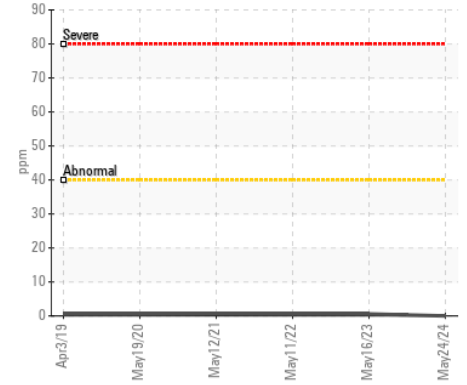
Copper (ppm)



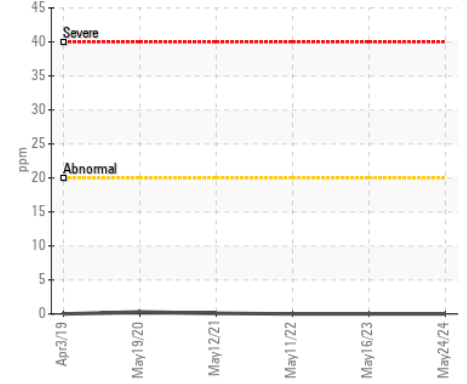
Viscosity @ 100°C



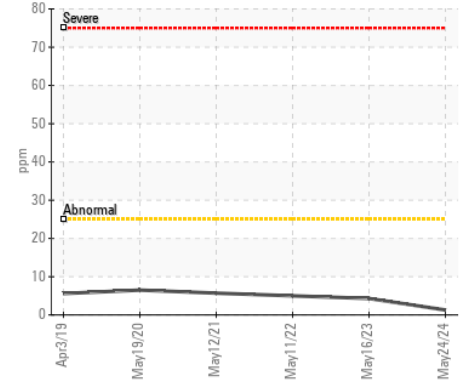
Lead (ppm)



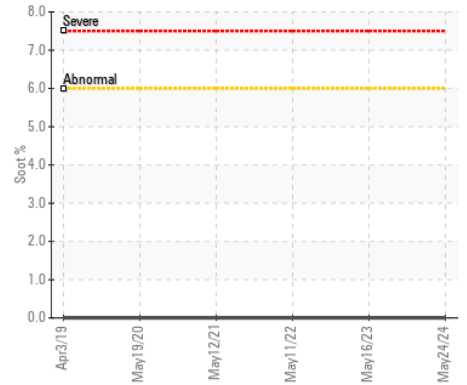
Chromium (ppm)



Silicon (ppm)



Soot %



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

Sample No. : PN0006113

Lab Number : 02638817

Unique Number : 5787979

Test Package : MOB 1

Received : 30 May 2024

Tested : 30 May 2024

Diagnosed : 30 May 2024 - Wes Davis

POWER STATION INC.

1050 JAYSON COURT

MISSISSAUGA, ON

CA L4W 2V5

Contact: Brett Kinkley

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T:

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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.