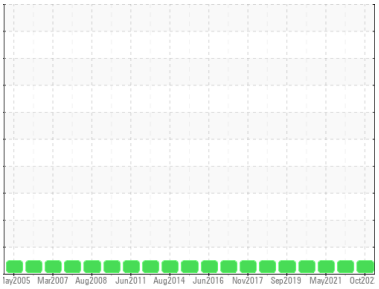
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
KEN DIESEL (S/N 4RG01618)
Component
Diesel Engine
Fluid
CAT DIESEL ENGINE OIL 15W40 (34 LTR)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
Metal levels are typical for a new component breaking in.

Contamination
There is no indication of any contamination in the oil.

Fluid Condition
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0445195**	WC0445330	WC0328050
Sample Date		Client Info		**19 Oct 2022**	03 Mar 2022	27 May 2021
Machine Age	hrs	Client Info		**718**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Not Changd**	N/A	N/A
Sample Status				**NORMAL**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>5	**<1.0**	<1.0	<1.0
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	**41**	46	44
Chromium	ppm	ASTM D5185(m)	>20	**<1**	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	**<1**	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	**<1**	0	0
Silver	ppm	ASTM D5185(m)	>2	**0**	0	<1
Aluminum	ppm	ASTM D5185(m)	>25	**2**	2	2
Lead	ppm	ASTM D5185(m)	>40	**3**	4	4
Copper	ppm	ASTM D5185(m)	>330	**18**	20	19
Tin	ppm	ASTM D5185(m)	>15	**2**	2	2
Antimony	ppm	ASTM D5185(m)		**<1**	<1	<1
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**<1**	<1	<1

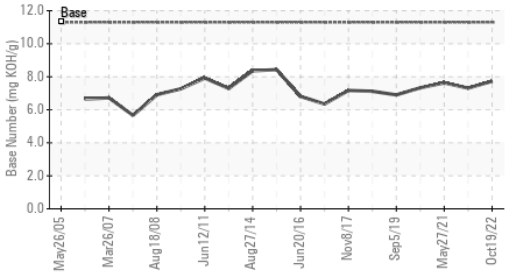
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**30**	34	35
Barium	ppm	ASTM D5185(m)		**2**	3	3
Molybdenum	ppm	ASTM D5185(m)		**19**	16	16
Manganese	ppm	ASTM D5185(m)		**<1**	<1	<1
Magnesium	ppm	ASTM D5185(m)		**650**	657	659
Calcium	ppm	ASTM D5185(m)		**1569**	1562	1557
Phosphorus	ppm	ASTM D5185(m)		**1018**	1005	1012
Zinc	ppm	ASTM D5185(m)	1460	**1137**	1176	1196
Sulfur	ppm	ASTM D5185(m)		**3256**	3276	3353
Lithium	ppm	ASTM D5185(m)		**<1**	0	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**7**	8	7
Sodium	ppm	ASTM D5185(m)		**6**	6	6
Potassium	ppm	ASTM D5185(m)	>20	**1**	1	2

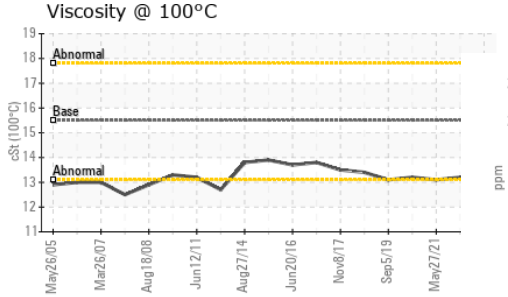
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0.2**	0.2	0.2
Nitration	Abs/cm	ASTM D7624*	>20	**8.6**	8.3	8.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	**22.4**	23.5	22.0

OIL ANALYSIS REPORT

Base Number



Viscosity @ 100°C



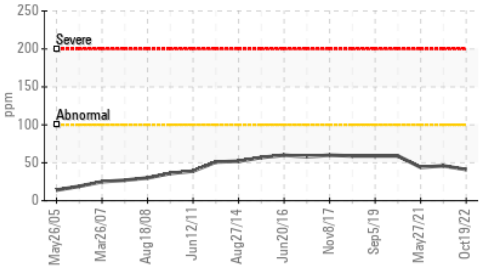
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**16.7**	16.4	16.7
Base Number (BN)	mg KOH/g	ASTM D2896*	11.3	**7.73**	7.31	7.63

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

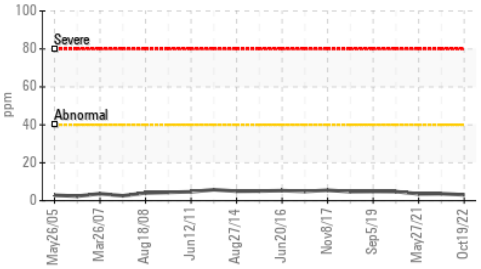
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.5	**13.2**	13.2	13.1

GRAPHS

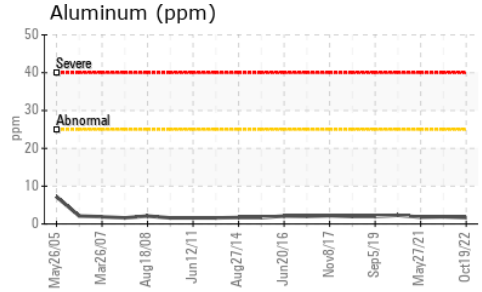
Iron (ppm)



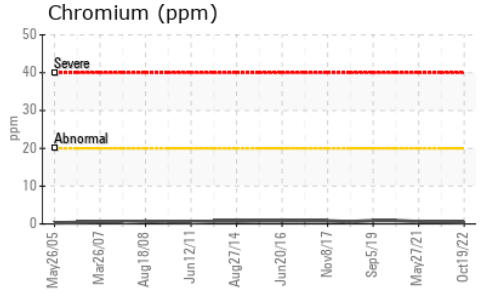
Lead (ppm)



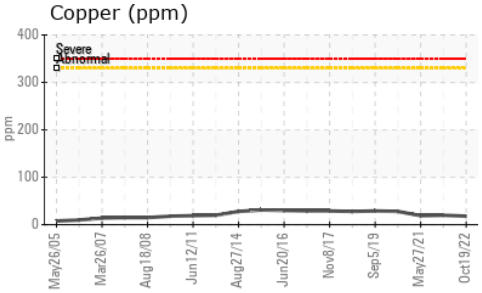
Aluminum (ppm)



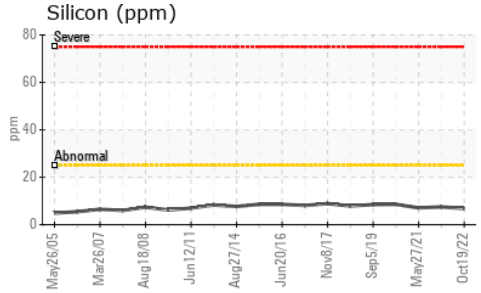
Chromium (ppm)



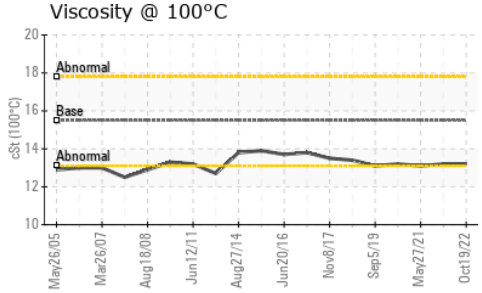
Copper (ppm)



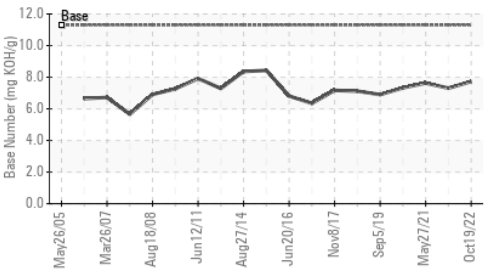
Silicon (ppm)



Viscosity @ 100°C



Base Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0445195
Lab Number : 02517457
Unique Number : 5474437
Test Package : MOB 2

Recieved : 20 Oct 2022
Diagnosed : 21 Oct 2022
Diagnostician : Kevin Marson

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.

NEWFOUNDLAND POWER INC.
50 DUFFY PLACE, PO BOX 8910
ST. JOHNS, NL
CA A1B 3P6
Contact: Paul Martin
pmartin@newfoundlandpower.com
T:
F: (709)737-2926