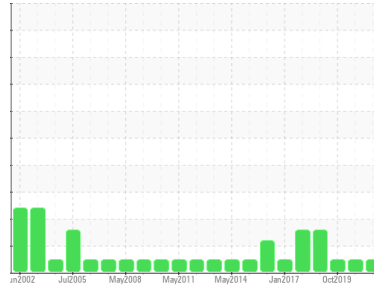


Area
Main Power Generation [450237342]
Machine Id
Generator - MPG (Port) Starting Engine Crank Case (S/N Sample Tag XX-80201-S2)
Component
Diesel Engine
Fluid
PETRO CANADA DURON MOTOR OIL SAE 40 (37 LTR)



DIAGNOSIS

Recommendation
Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear
All component wear rates are normal.

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

Fluid Condition
Additive levels indicate the addition of a different brand, or type of oil. 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	PC	PC0052563	PC
Sample Date	Client Info	15 Dec 2023	22 Aug 2023	31 Oct 2019
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	N/A	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	11	11	4
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	0	0	0
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	<1	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	2	1	<1
Lead	ppm	ASTM D5185(m)	>40	2	2	<1
Copper	ppm	ASTM D5185(m)	>330	3	3	1
Tin	ppm	ASTM D5185(m)	>15	1	1	<1
Antimony	ppm	ASTM D5185(m)		0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES method limit/base current history1 history2

Boron	ppm	ASTM D5185(m)	1.0	1	2	<1
Barium	ppm	ASTM D5185(m)	1.0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	1.0	5	6	2
Manganese	ppm	ASTM D5185(m)	1	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	15	899	936	928
Calcium	ppm	ASTM D5185(m)	2540	1005	1004	1074
Phosphorus	ppm	ASTM D5185(m)	1000	1046	1148	1132
Zinc	ppm	ASTM D5185(m)	1110	1186	1242	1267
Sulfur	ppm	ASTM D5185(m)	3700	2825	2762	2953
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

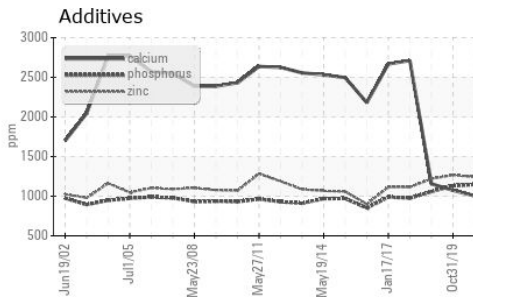
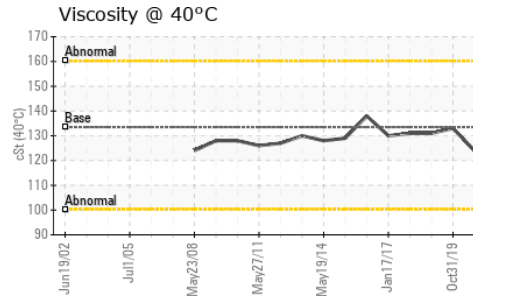
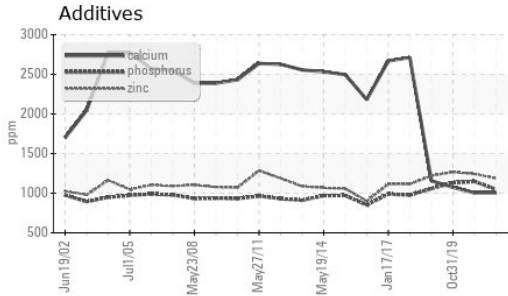
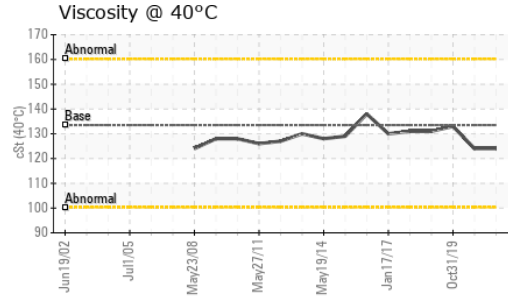
CONTAMINANTS method limit/base current history1 history2

Silicon	ppm	ASTM D5185(m)	>25	21	21	21
Sodium	ppm	ASTM D5185(m)		2	2	0
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1

INFRA-RED method limit/base current history1 history2

Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	3.4	3.3	3.8
Sulfation	Abs./1mm	ASTM D7415*	>30	13.1	12.9	15.3

OIL ANALYSIS REPORT

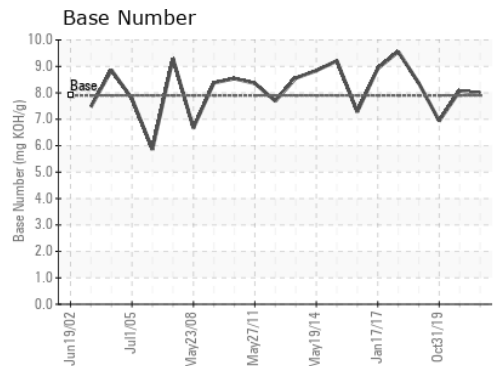
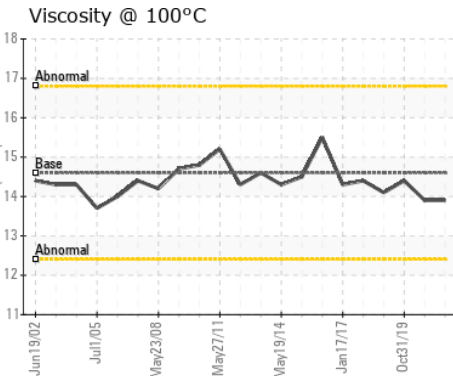
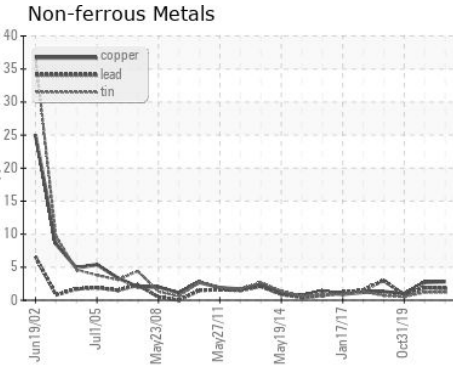
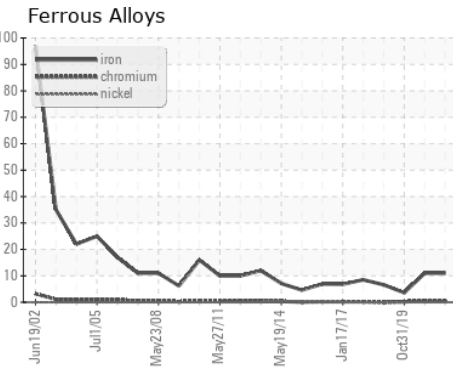


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	6.8	6.7	6.4
Base Number (BN)	mg KOH/g	ASTM D2896*	7.9	7.99	8.07	6.94

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 @ 40°C	cSt	ASTM D7279(m)	133.5	124	124	133
Visc @ 100°C	cSt	ASTM D7279(m)	14.6	13.9	13.9	14.4
Viscosity Index (VI)	Scale	ASTM D2270*	109	109	109	107

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC **Received** : 17 Jan 2024
Lab Number : **02609163** **Diagnosed** : 18 Jan 2024
Unique Number : 5710249 **Diagnostician** : Kevin Marson
Test Package : MAR 2 (Additional Tests: KV40, VI)

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 Scotia Centre, 235 Water Street
 St. John's, NL
 CA A1C 1B6
 Contact: Josh Hynes
 joshhynes@suncor.com
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 F: (709)724-2835

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.