



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
CR 2212 No. 2 Main Engine

Component
Main Engine

Fluid
PETRO CANADA BP ENERGOL DS3 153 (800 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0844558	WC0844542	WC0844534
Sample Date		Client Info		09 Apr 2024	16 Feb 2024	14 Jan 2024
Machine Age	hrs	Client Info		116156	115617	115138
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		500	500	0
Oil Changed		Client Info		N/A	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>75	10	10	9
Chromium	ppm	ASTM D5185(m)	>8	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>3	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>15	2	2	2
Lead	ppm	ASTM D5185(m)	>18	0	<1	0
Copper	ppm	ASTM D5185(m)	>80	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>14	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

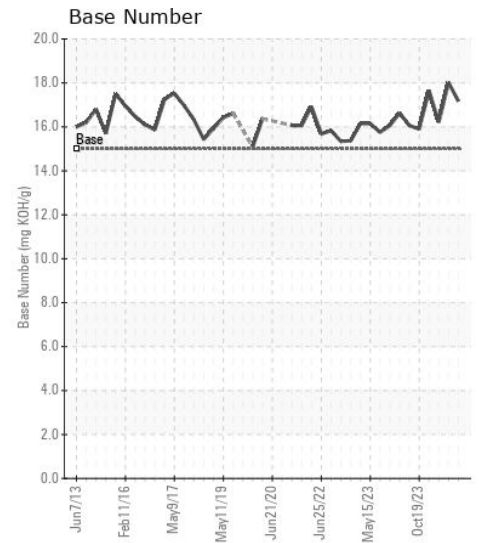
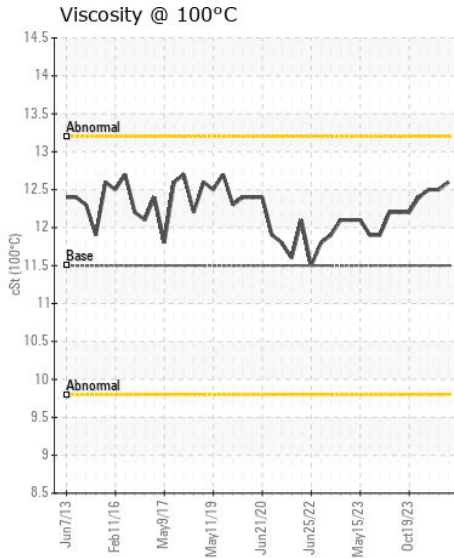
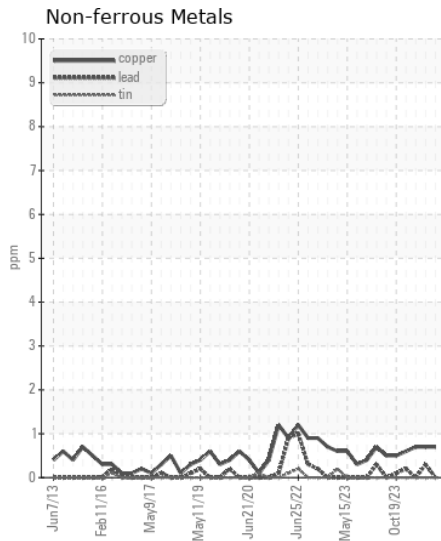
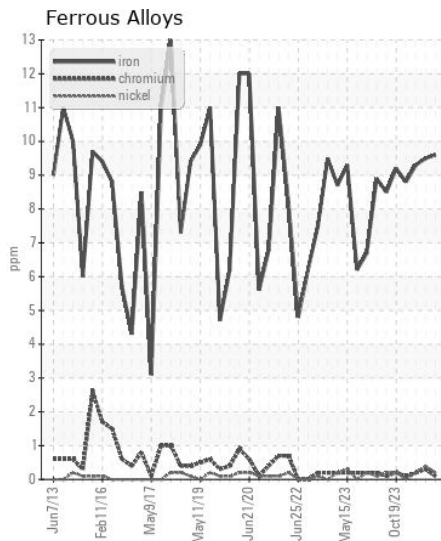
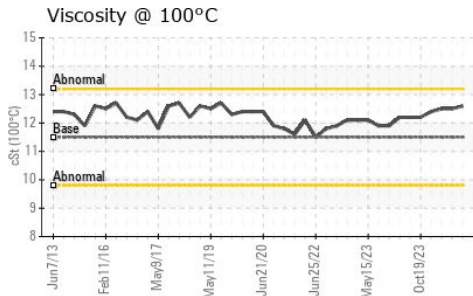
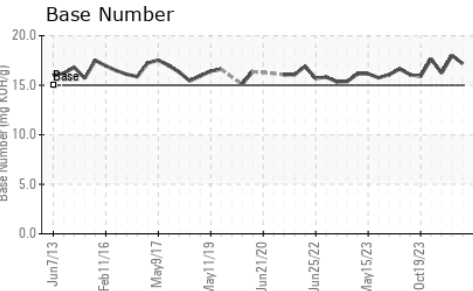
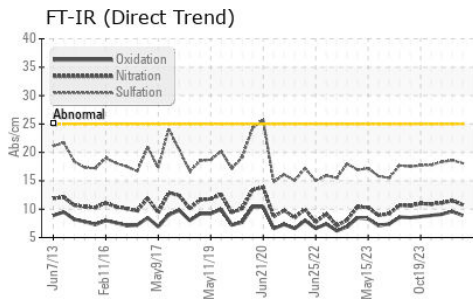
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>20	6	7	8
Potassium	ppm	ASTM D5185(m)	>20	<1	1	2
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*		1	1	1
Nitration	Abs/cm	ASTM D7624*	>20	10.8	11.5	11.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.1	18.6	18.3
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG

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.

Sodium	ppm	ASTM D5185(m)	>75	2	1	2
Boron	ppm	ASTM D5185(m)		7	3	3
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		<1	1	1
Manganese	ppm	ASTM D5185(m)		<1	0	0
Magnesium	ppm	ASTM D5185(m)		40	41	39
Calcium	ppm	ASTM D5185(m)		5964	5802	5877
Phosphorus	ppm	ASTM D5185(m)		976	994	997
Zinc	ppm	ASTM D5185(m)		1094	1095	1094
Sulfur	ppm	ASTM D5185(m)		9282	9799	9913
Oxidation	Abs/.1mm	ASTM D7414*	>25	8.9	9.6	9.1
Base Number (BN)	mg KOH/g	ASTM D2896*	15	17.18	18.01	16.22
Visc @ 100°C	cSt	ASTM D7279(m)	11.5	12.6	12.5	12.5



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0844558
Lab Number : 02630437
Unique Number : 5763569
Test Package : MAR 2
Received : 22 Apr 2024
Tested : 23 Apr 2024
Diagnosed : 23 Apr 2024 - Kevin Marson

CANADIAN COAST GUARD
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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.