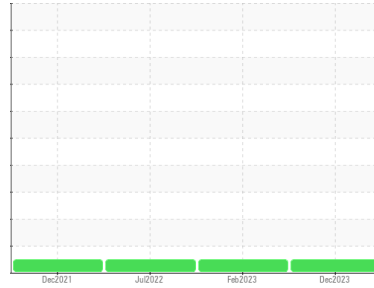


OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
BLUE BIRD 003290
 Component
Diesel Engine
 Fluid
PETRO CANADA 10W30 (18 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

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			PCA0091667	PCA0045454	PCA0045409
Sample Date	Client Info			07 Dec 2023	16 Feb 2023	24 Jul 2022
Machine Age	mls Client Info			85120	74661	72700
Oil Age	mls Client Info			10459	1961	11416
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>130	29	7	35
Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	6	6	8
Lead	ppm	ASTM D5185m	>20	<1	<1	0
Copper	ppm	ASTM D5185m	>125	3	7	35
Tin	ppm	ASTM D5185m	>4	0	<1	<1
Antimony	ppm	ASTM D5185m		---	---	---
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0

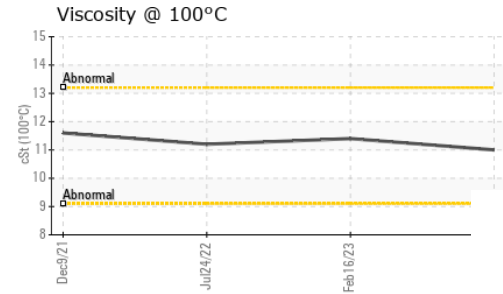
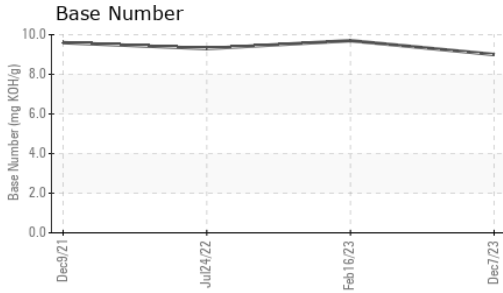
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	1	2
Barium	ppm	ASTM D5185m		0	0	2
Molybdenum	ppm	ASTM D5185m		58	60	60
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		881	930	904
Calcium	ppm	ASTM D5185m		984	1086	1060
Phosphorus	ppm	ASTM D5185m		925	970	1015
Zinc	ppm	ASTM D5185m		1125	1210	1251
Sulfur	ppm	ASTM D5185m		2724	3399	3053

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	3	3	4
Sodium	ppm	ASTM D5185m		<1	1	1
Potassium	ppm	ASTM D5185m	>20	4	5	9

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	1.1	0.4	1.3
Nitration	Abs/cm	*ASTM D7624	>20	10.6	6.5	12.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.4	18.2	22.7

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.0	14.0	19.5
Base Number (BN)	mg KOH/g	ASTM D2896		9.0	9.7	9.3

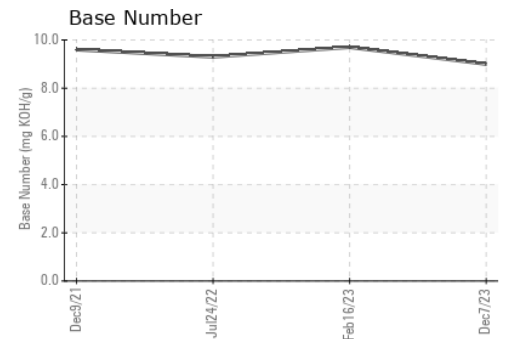
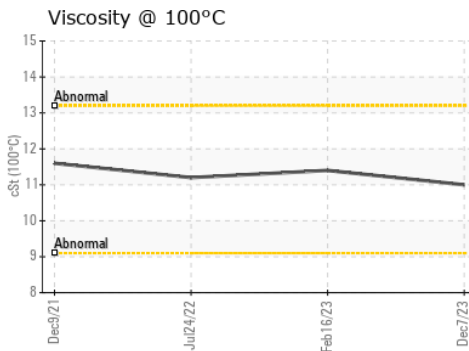
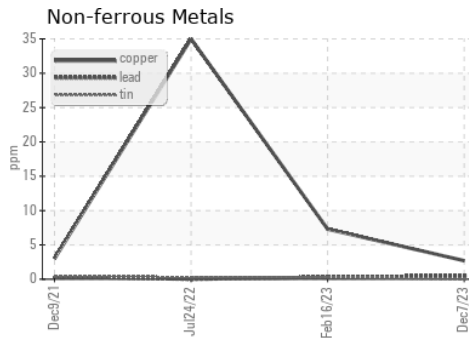
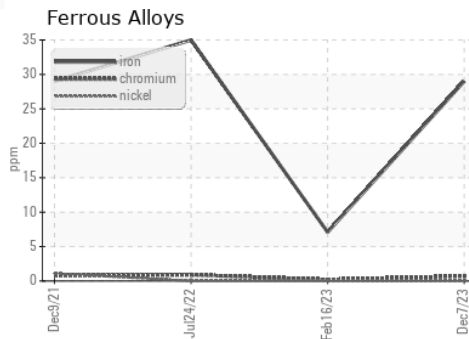
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	11.0	11.4	11.2

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0091667 **Received** : 20 Dec 2023
Lab Number : **06040312** **Diagnosed** : 21 Dec 2023
Unique Number : 10795541 **Diagnostician** : Angela Borella
Test Package : FLEET (Additional Tests: FT-IR(Diff))

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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 4525 North Alby Road
 Godfrey, IL
 US 62035

Contact: Chad Ingold
 c.ingold@illinois-central.com

T: (618)466-5400

F: