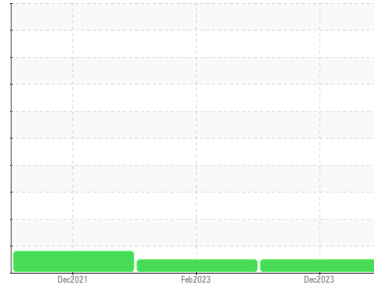


OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
BLUE BIRD 003408

Component
Diesel Engine
Fluid
NOT GIVEN (18 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

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			PCA0091752	PCA0071428	PCA0045550
Sample Date	Client Info			08 Dec 2023	15 Feb 2023	08 Dec 2021
Machine Age	mls Client Info			71615	65237	53070
Oil Age	mls Client Info			6378	12167	53070
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	MARGINAL

CONTAMINATION		method	limit/base	current	history1	history2
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	31	39	32
Chromium	ppm	ASTM D5185m	>10	<1	1	1
Nickel	ppm	ASTM D5185m	>4	0	<1	2
Titanium	ppm	ASTM D5185m	>2	0	<1	1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	5	10	10
Lead	ppm	ASTM D5185m	>20	0	1	<1
Copper	ppm	ASTM D5185m	>125	18	100	3
Tin	ppm	ASTM D5185m	>4	0	<1	<1
Antimony	ppm	ASTM D5185m		---	---	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
Cadmium	ppm	ASTM D5185m		0	0	0

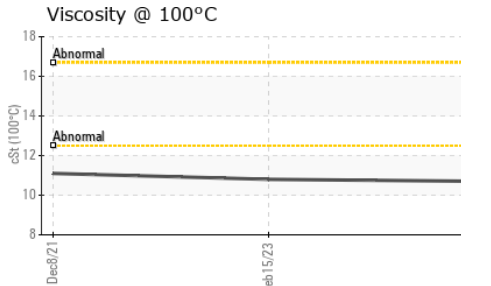
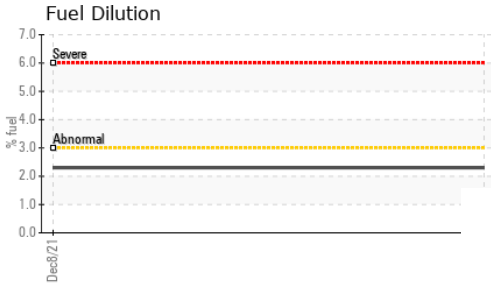
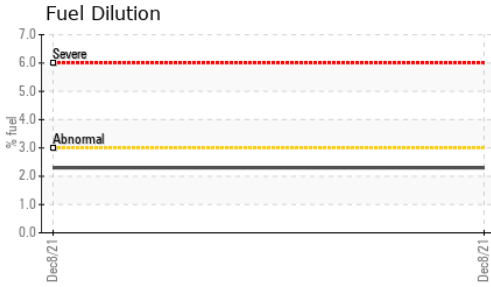
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<1	<1	12
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		57	59	51
Manganese	ppm	ASTM D5185m		0	1	<1
Magnesium	ppm	ASTM D5185m		889	896	913
Calcium	ppm	ASTM D5185m		988	1094	1203
Phosphorus	ppm	ASTM D5185m		812	930	1035
Zinc	ppm	ASTM D5185m		1140	1220	1228
Sulfur	ppm	ASTM D5185m		2666	3008	2700

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	4	4	5
Sodium	ppm	ASTM D5185m		0	2	2
Potassium	ppm	ASTM D5185m	>20	9	14	15
Fuel	%	ASTM D3524	>3.0	<1.0	<1.0	▲ 2.3

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	0.3	0.5	0.3
Nitration	Abs/cm	*ASTM D7624	>20	8.2	10.3	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.1	20.9	19.6

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.7	18.7	16.2
Base Number (BN)	mg KOH/g	ASTM D2896		7.8	6.8	8.5

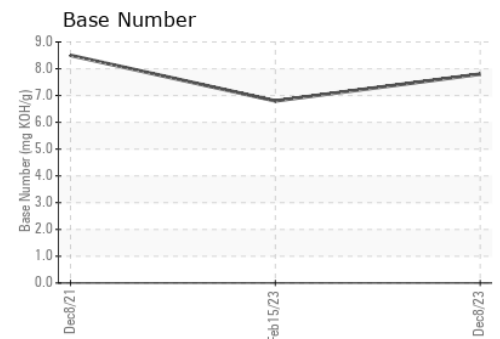
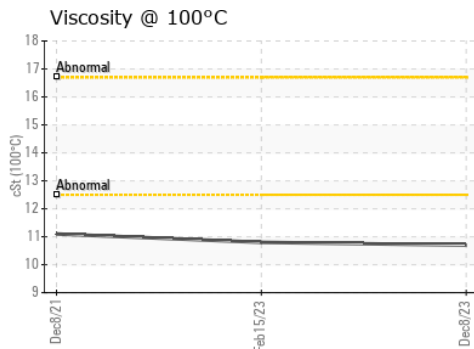
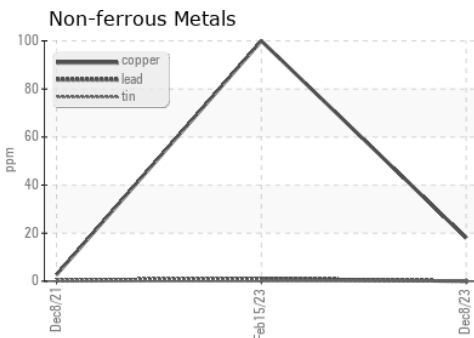
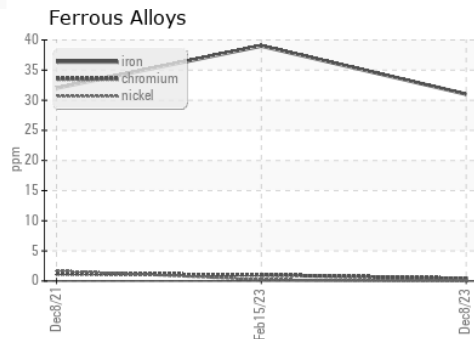
OIL ANALYSIS REPORT



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	10.7	10.8	11.1

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0091752 **Received** : 20 Dec 2023
Lab Number : **06040255** **Diagnosed** : 22 Dec 2023
Unique Number : 10795484 **Diagnostician** : Jonathan Hester
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

ICSB370 - Alton
 4525 North Alby Road
 Godfrey, IL
 US 62035
 Contact: Chad Ingold
 c.ingold@illinois-central.com
 T: (618)466-5400
 F:

Certificate L2367
 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)