



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
2227085 (S/N N643768)
 Component
Diesel Engine
 Fluid
{not provided} (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0116271	PCA0112324	PCA0108156
Sample Date		Client Info		11 Apr 2024	16 Dec 2023	23 Oct 2023
Machine Age	hrs	Client Info		0	0	18843
Oil Age	hrs	Client Info		0	0	18843
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

Exhaust valve wear is indicated.

Iron	ppm	ASTM D5185m	>100	24	17	26
Chromium	ppm	ASTM D5185m	>20	2	<1	<1
Nickel	ppm	ASTM D5185m	>4	▲ 7	▲ 6	<1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	<1	5	▲ 20
Aluminum	ppm	ASTM D5185m	>20	6	11	● 29
Lead	ppm	ASTM D5185m	>40	2	0	0
Copper	ppm	ASTM D5185m	>330	194	312	84
Tin	ppm	ASTM D5185m	>15	3	3	4
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

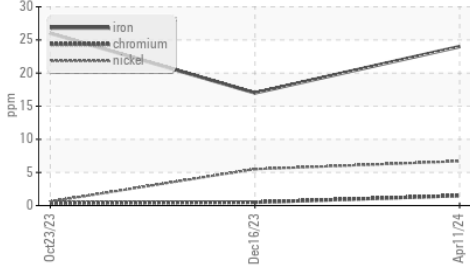
Silicon	ppm	ASTM D5185m	>25	10	15	▲ 59
Potassium	ppm	ASTM D5185m	>20	17	18	75
Fuel	%	ASTM D3524	>5	<1.0	0.3	0.3
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	10.0	8.1	9.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.1	19.4	24.8
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

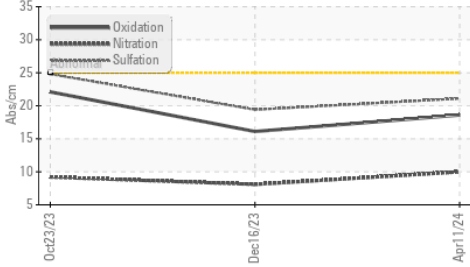
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<1	0	4
Boron	ppm	ASTM D5185m		3	20	216
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		66	67	113
Manganese	ppm	ASTM D5185m		2	2	3
Magnesium	ppm	ASTM D5185m		832	864	636
Calcium	ppm	ASTM D5185m		1157	1068	1361
Phosphorus	ppm	ASTM D5185m		967	924	550
Zinc	ppm	ASTM D5185m		1094	1138	794
Sulfur	ppm	ASTM D5185m		2253	2604	2195
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.6	16.1	22.1
Base Number (BN)	mg KOH/g	ASTM D2896		5.1	6.9	7.8
Visc @ 100°C	cSt	ASTM D445		10.3	10.2	9.3

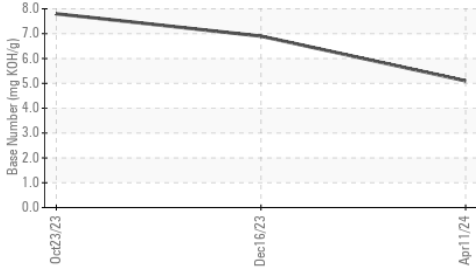
▲ Ferrous Alloys



FT-IR (Direct Trend)



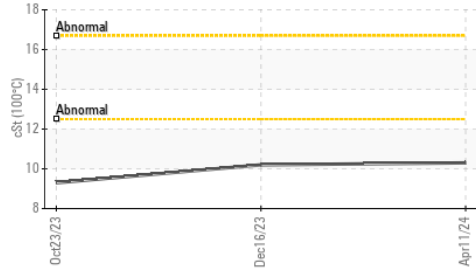
Base Number



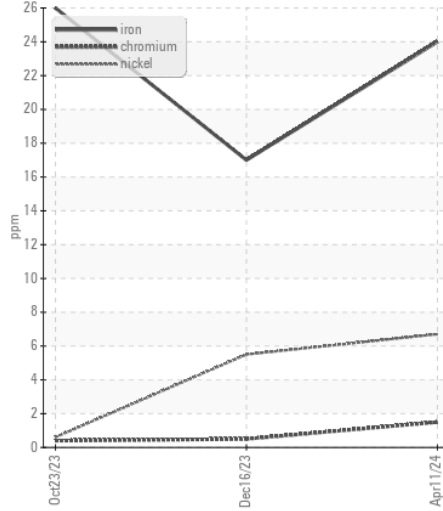
Fuel Dilution



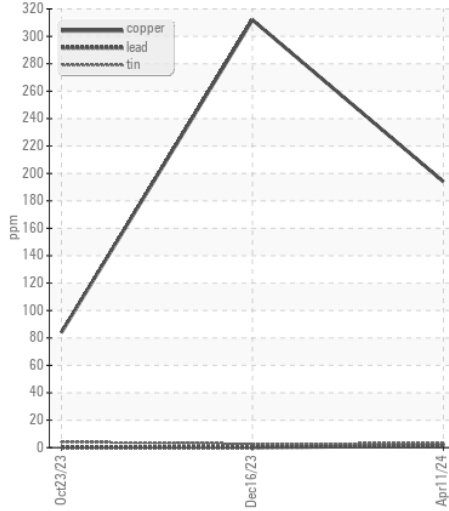
Viscosity @ 100°C



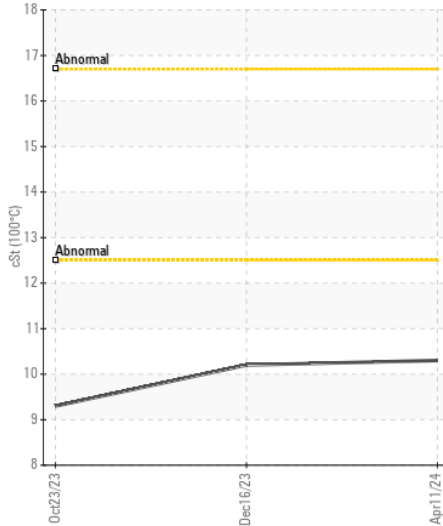
▲ Ferrous Alloys



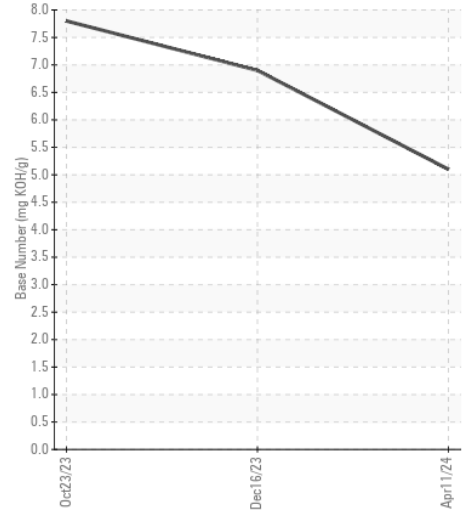
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : PCA0116271 Received : 12 Apr 2024
 Lab Number : 06146877 Tested : 15 Apr 2024
 Unique Number : 10976955 Diagnosed : 15 Apr 2024 - Sean Felton
 Test Package : FLEET (Additional Tests: FuelDilution)

PERDUE FARMS - DILLON
 2047 HWY 9 WEST
 DILLON, SC
 US 29536

Contact: KEVIN HOOKS
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 F: (843)841-8070

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)