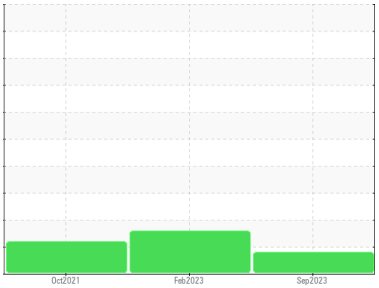
PROBLEM SUMMARY

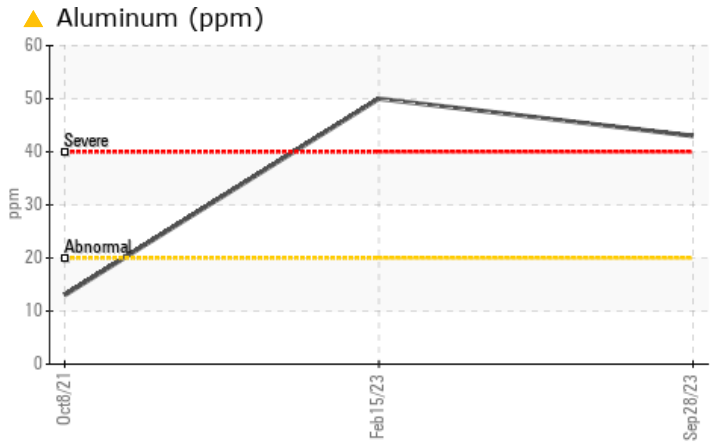
Sample Rating Trend



WEAR

Area
Store 4 - Fairmont
Machine Id
PRINOTH T14R 935310203
Component
Diesel Engine
Fluid
CAT DIESEL ENGINE OIL 15W40 (5 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL
Aluminum	ppm	ASTM D5185m	>20	▲ **43**	50	13

Customer Id: LESMAROH
Sample No.: LEC0045367
Lab Number: 05966085
Test Package: CONST

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

HISTORICAL DIAGNOSIS

15 Feb 2023 Diag: Don Baldridge

WEAR

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.Piston and cylinder wear is indicated. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

08 Oct 2021 Diag: Jonathan Hester

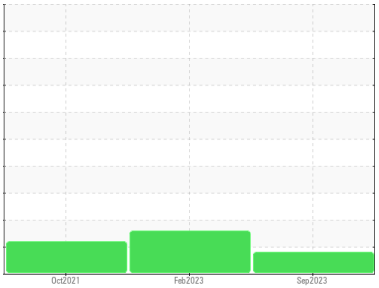
WEAR

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other metal levels are typical for a new component breaking in. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Area
Store 4 - Fairmont
Machine Id
PRINOTH T14R 935310203
Component
Diesel Engine
Fluid
CAT DIESEL ENGINE OIL 15W40 (5 GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

The aluminum level is abnormal. All other 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		**LEC0045367**	LEC0038559	LEC0023393
Sample Date		Client Info		**28 Sep 2023**	15 Feb 2023	08 Oct 2021
Machine Age	hrs	Client Info		**1402**	949	497
Oil Age	hrs	Client Info		**453**	452	497
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>5	**<1.0**	<1.0	0.1
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	**73**	▲ 115	70
Chromium	ppm	ASTM D5185m	>20	**4**	5	2
Nickel	ppm	ASTM D5185m	>4	**<1**	2	0
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m	>3	**0**	0	<1
Aluminum	ppm	ASTM D5185m	>20	▲ **43**	50	13
Lead	ppm	ASTM D5185m	>40	**<1**	0	6
Copper	ppm	ASTM D5185m	>330	**31**	▲ 123	▲ 400
Tin	ppm	ASTM D5185m	>15	**<1**	0	<1
Antimony	ppm	ASTM D5185m		**---**	---	0
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		**239**	166	44
Barium	ppm	ASTM D5185m		**<1**	<1	0
Molybdenum	ppm	ASTM D5185m		**249**	208	49
Manganese	ppm	ASTM D5185m		**2**	2	2
Magnesium	ppm	ASTM D5185m		**828**	682	162
Calcium	ppm	ASTM D5185m		**1511**	1631	2022
Phosphorus	ppm	ASTM D5185m		**918**	879	934
Zinc	ppm	ASTM D5185m	1460	**1152**	1103	1082
Sulfur	ppm	ASTM D5185m		**3112**	3588	2932

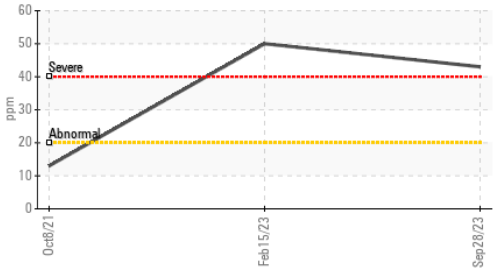
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>!20	**11**	12	9
Sodium	ppm	ASTM D5185m		**6**	4	1
Potassium	ppm	ASTM D5185m	>20	**6**	6	7

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**0.3**	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	**9.0**	9.9	9.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	**21.6**	23.7	28.8

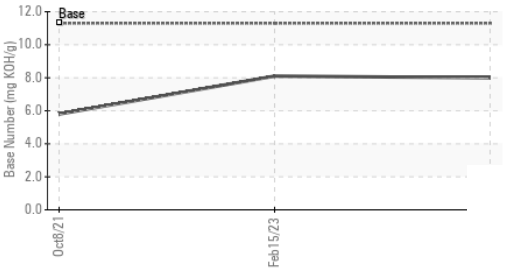
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**16.8**	19.4	30.4
Base Number (BN)	mg KOH/g	ASTM D2896	11.3	**8.0**	8.1	5.8

OIL ANALYSIS REPORT

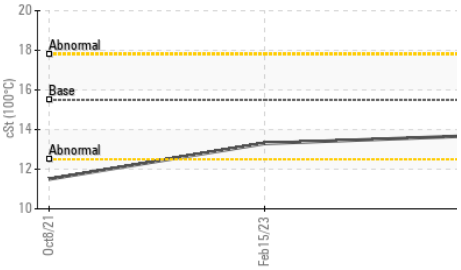
Aluminum (ppm)



Base Number



Viscosity @ 100°C

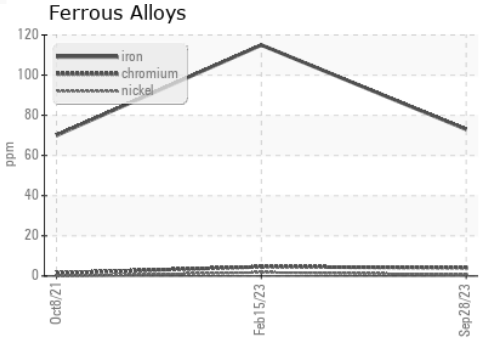


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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
Free Water	scalar	*Visual		**NEG**	NEG	NEG

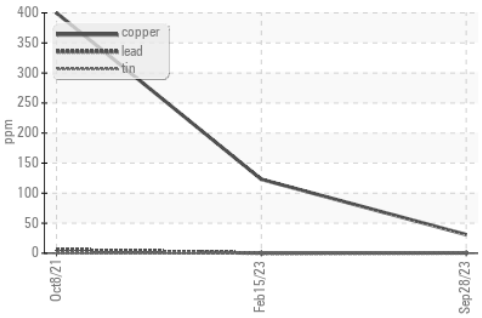
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.5	**13.7**	13.3	▲ 11.5

GRAPHS

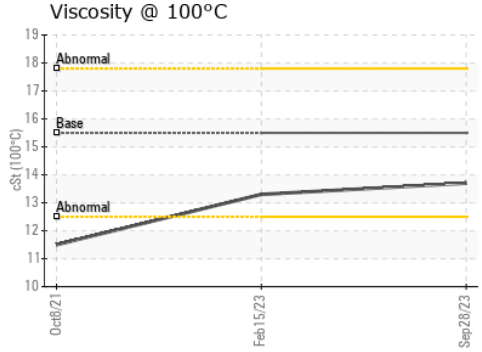
Ferrous Alloys



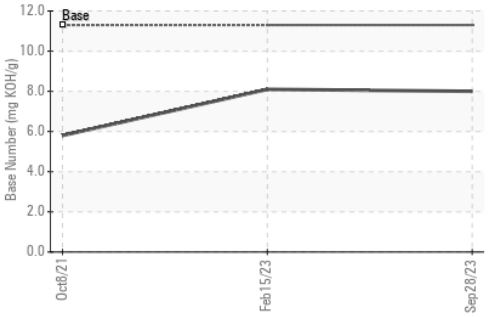
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0045367 **Received** : 02 Oct 2023
Lab Number : 05966085 **Diagnosed** : 03 Oct 2023
Unique Number : 10672636 **Diagnostician** : Don Baldridge
Test Package : CONST (Additional Tests: TBN)

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)

LESLIE EQUIPMENT COMPANY
105 TENNIS CENTER DR.
MARIETTA, OH
US 45750-9765
Contact: LEANNE KENDALL
KendalLeanne@lec1.com
T:
F: (740)373-5570