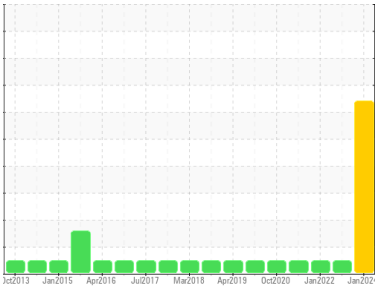
PROBLEM SUMMARY

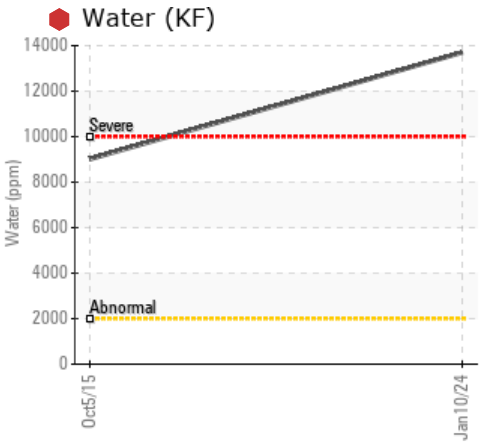
Sample Rating Trend

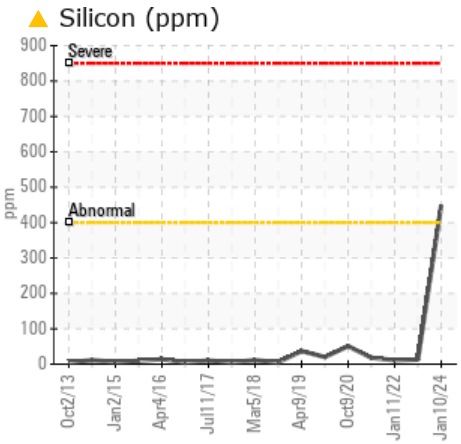


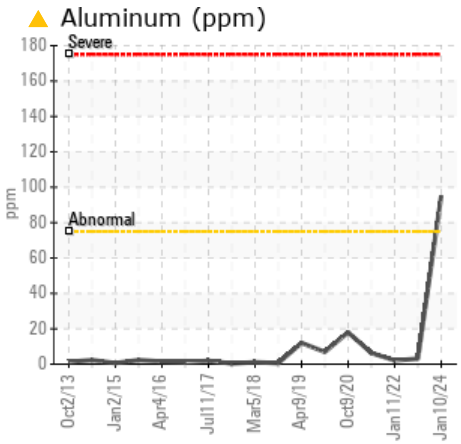
WATER

Machine Id
CATERPILLAR 316EL 8379 (S/N DZW00149)
Component
Right Final Drive
Fluid
TDTO FLUID SAE 30 (--- GAL)

COMPONENT CONDITION SUMMARY







RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	NORMAL	NORMAL
Silicon	ppm	ASTM D5185m	>400	▲ **449**	13	11
Water	%	ASTM D6304	>0.2	⬢ **1.37**	---	---
ppm Water	ppm	ASTM D6304	>2000	⬢ **13700**	---	---
Silt	scalar	*Visual	NONE	▲ **HEAVY**	NONE	NONE
Emulsified Water	scalar	*Visual	>0.2	⬢ **0.2%**	NEG	NEG

Customer Id: TRANEW
Sample No.: WC0831191
Lab Number: 06059681
Test Package: CONST

To manage this report scan the QR code

To discuss the diagnosis or test data:
Sean Felton +1 919-379-4092
sfelton@wearcheckusa.com

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Dirt Access	---	---	?	We advise that you check all areas where dirt can enter the system.
Check Water Access	---	---	?	We advise that you check for the source of water entry.

HISTORICAL DIAGNOSIS

13 Jul 2023 Diag: Sean Felton

NORMAL

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

view report

11 Jan 2022 Diag: Don Baldridge

NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

view report

24 May 2021 Diag: Don Baldridge

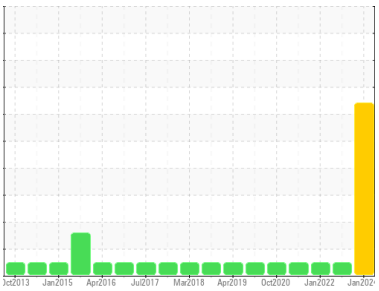
NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Machine Id
CATERPILLAR 316EL 8379 (S/N DZW00149)
Component
Right Final Drive
Fluid
TDTO FLUID SAE 30 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check all areas where dirt can enter the system. We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. There is a high concentration of water present in the oil. There is a high amount of visible silt present in the sample.

Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0831191**	WC0816199	WC0652153
Sample Date		Client Info		**10 Jan 2024**	13 Jul 2023	11 Jan 2022
Machine Age	hrs	Client Info		**8555**	8202	7782
Oil Age	hrs	Client Info		**353**	420	485
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**SEVERE**	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>800	**344**	51	45
Chromium	ppm	ASTM D5185m	>10	**2**	0	<1
Nickel	ppm	ASTM D5185m	>5	**1**	0	0
Titanium	ppm	ASTM D5185m	>15	**20**	<1	<1
Silver	ppm	ASTM D5185m	>2	**0**	0	<1
Aluminum	ppm	ASTM D5185m	>75	▲ **95**	3	2
Lead	ppm	ASTM D5185m	>10	**<1**	0	<1
Copper	ppm	ASTM D5185m	>75	**1**	<1	<1
Tin	ppm	ASTM D5185m	>8	**<1**	0	<1
Antimony	ppm	ASTM D5185m	>50	**---**	---	<1
Vanadium	ppm	ASTM D5185m		**<1**	<1	<1
Cadmium	ppm	ASTM D5185m		**<1**	0	0

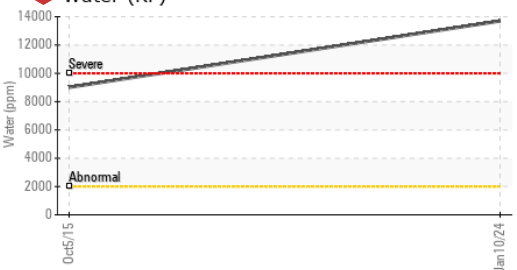
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	37	**89**	198	178
Barium	ppm	ASTM D5185m	7	**3**	0	<1
Molybdenum	ppm	ASTM D5185m	5	**3**	0	<1
Manganese	ppm	ASTM D5185m		**3**	<1	<1
Magnesium	ppm	ASTM D5185m	40	**17**	<1	<1
Calcium	ppm	ASTM D5185m	2650	**2578**	48	41
Phosphorus	ppm	ASTM D5185m	1050	**819**	364	360
Zinc	ppm	ASTM D5185m	1075	**921**	3	0
Sulfur	ppm	ASTM D5185m	5750	**3217**	2151	1705

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>400	▲ **449**	13	11
Sodium	ppm	ASTM D5185m		**0**	1	0
Potassium	ppm	ASTM D5185m	>20	**8**	0	1
Water	%	ASTM D6304	>0.2	● **1.37**	---	---
ppm Water	ppm	ASTM D6304	>2000	● **13700**	---	---

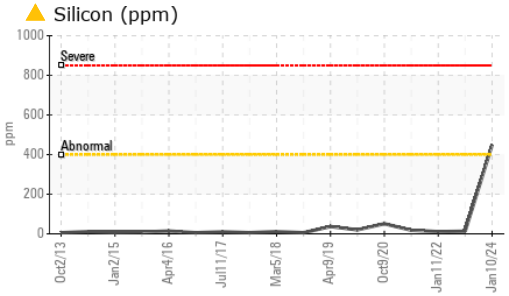
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	▲ **HEAVY**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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	● **0.2%**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

OIL ANALYSIS REPORT

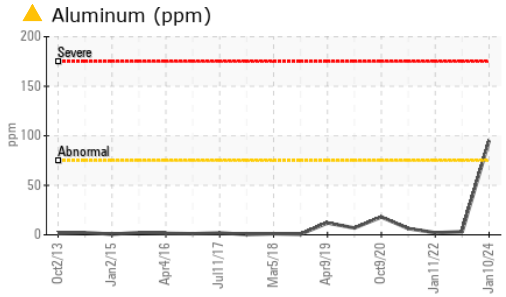
Water (KF)



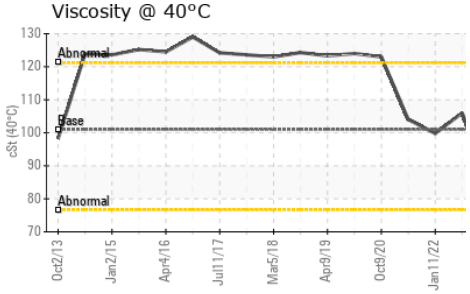
Silicon (ppm)



Aluminum (ppm)



Viscosity @ 40°C

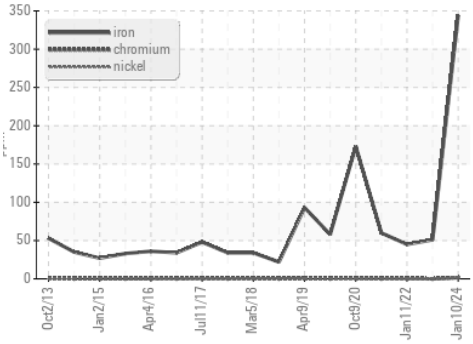


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	101	**85.1**	106	99.8

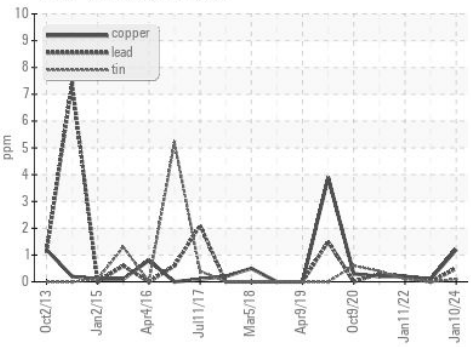
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			*no image*	*no image*	*no image*
Bottom			*no image*	*no image*	*no image*

GRAPHS

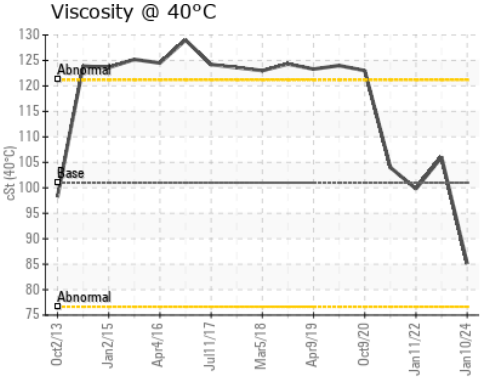
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0831191 **Recieved** : 12 Jan 2024
Lab Number : 06059681 **Diagnosed** : 16 Jan 2024
Unique Number : 10831063 **Diagnostician** : Sean Felton
Test Package : CONST (Additional Tests: KF)

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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