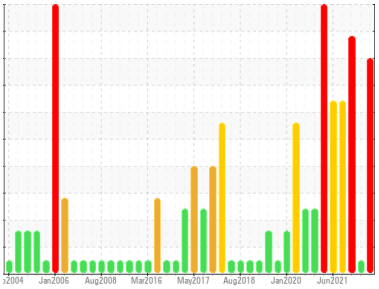
PROBLEM SUMMARY

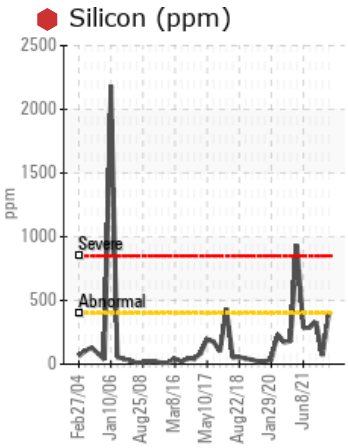
Machine Id
CATERPILLAR 336 F 8324 (S/N RKB00916)
Component
Right Final Drive
Fluid
PETRO CANADA SYNGEAR E CD-50 (--- GAL)

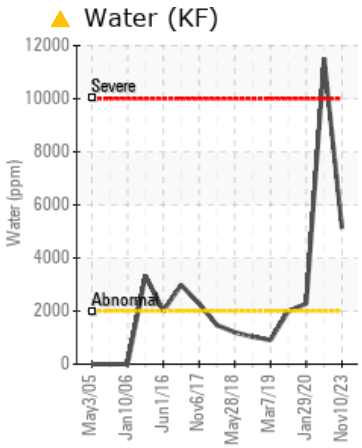
Sample Rating Trend

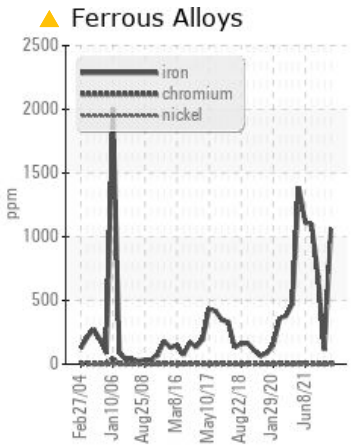


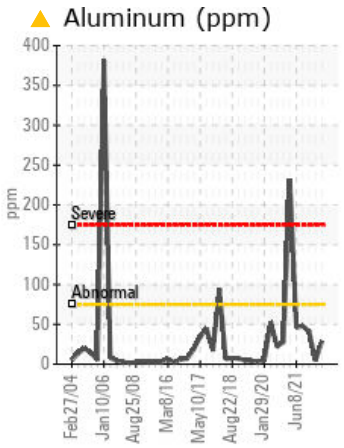
DIRT

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	SEVERE
Iron	ppm	ASTM D5185m	>800	▲ **1061**	113	▲ 686
Aluminum	ppm	ASTM D5185m	>75	▲ **29**	4	▲ 41
Silicon	ppm	ASTM D5185m	>400	⬢ **404**	69	⬢ 330
Water	%	ASTM D6304	>0.2	▲ **0.513**	NEG	NEG
ppm Water	ppm	ASTM D6304	>2000	▲ **5130**	---	---

Customer Id: TRANEW
Sample No.: WC0863021
Lab Number: 06012820
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

14 Oct 2022 Diag: Jonathan Hester

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

01 Feb 2022 Diag: Don Baldridge

DIRT

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.The iron level has decreased, but is still abnormal. Gear wear is indicated. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The oil viscosity is lower than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Confirm oil type.

view report

20 Sep 2021 Diag: Jonathan Hester

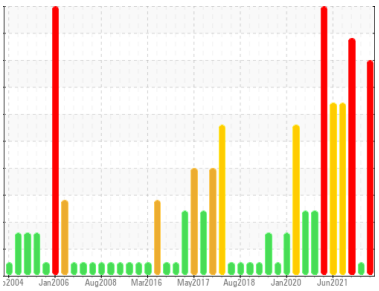
DIRT

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.Gear wear is indicated. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The condition of the oil is acceptable for the time in service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



DIRT

Machine Id
CATERPILLAR 336 F 8324 (S/N RKB00916)
Component
Right Final Drive
Fluid
PETRO CANADA SYNGEAR E CD-50 (--- 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

Gear wear is indicated.

Contamination

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

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0863021**	WC0734454	WC0662709
Sample Date		Client Info		**10 Nov 2023**	14 Oct 2022	01 Feb 2022
Machine Age	hrs	Client Info		**13396**	12613	11840
Oil Age	hrs	Client Info		**529**	673	513
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**SEVERE**	NORMAL	SEVERE

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>800	▲ **1061**	113	▲ 686
Chromium	ppm	ASTM D5185m	>10	**4**	1	3
Nickel	ppm	ASTM D5185m	>5	**2**	0	<1
Titanium	ppm	ASTM D5185m	>15	**4**	<1	5
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>75	▲ **29**	4	▲ 41
Lead	ppm	ASTM D5185m	>10	**0**	<1	2
Copper	ppm	ASTM D5185m	>75	**3**	7	23
Tin	ppm	ASTM D5185m	>8	**0**	0	2
Antimony	ppm	ASTM D5185m	>50	**---**	---	<1
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	0	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**85**	24	132
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**<1**	2	3
Manganese	ppm	ASTM D5185m		**8**	2	5
Magnesium	ppm	ASTM D5185m		**7**	18	▲ 47
Calcium	ppm	ASTM D5185m		**248**	2922	▲ 2635
Phosphorus	ppm	ASTM D5185m		**896**	846	▲ 1001
Zinc	ppm	ASTM D5185m		**142**	1078	▲ 1083
Sulfur	ppm	ASTM D5185m		**23155**	7189	▲ 2662

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>400	⬢ **404**	69	⬢ 330
Sodium	ppm	ASTM D5185m		**2**	2	9
Potassium	ppm	ASTM D5185m	>20	**11**	0	10
Water	%	ASTM D6304	>0.2	▲ **0.513**	NEG	NEG
ppm Water	ppm	ASTM D6304	>2000	▲ **5130**	---	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	VLITE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	LIGHT
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

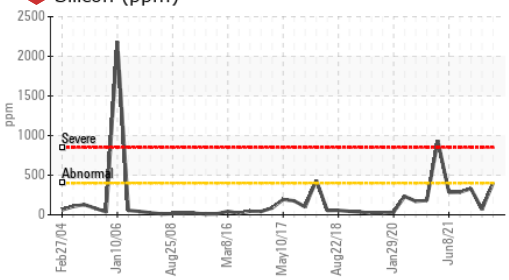
OIL ANALYSIS REPORT

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	138.2	**107**	41.4	▲ 41.1

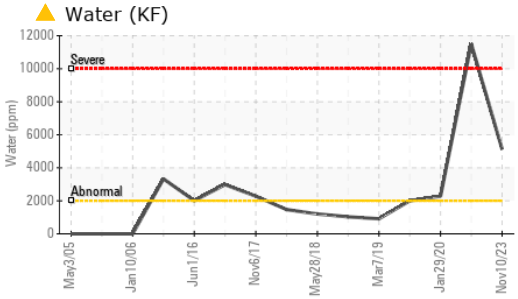
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			*no image*	*no image*	*no image*
Bottom			*no image*	*no image*	*no image*

GRAPHS

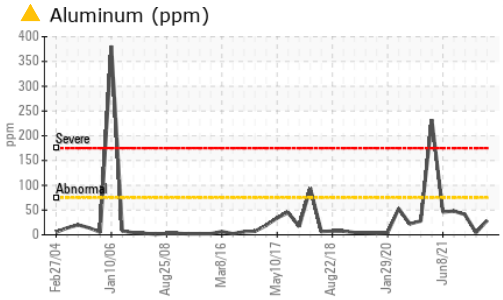
Silicon (ppm)



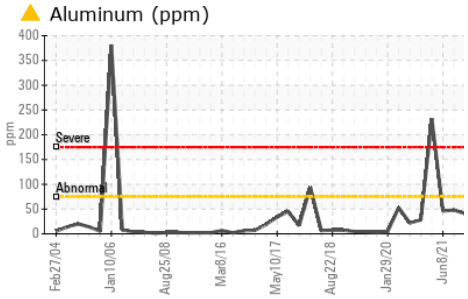
Water (KF)



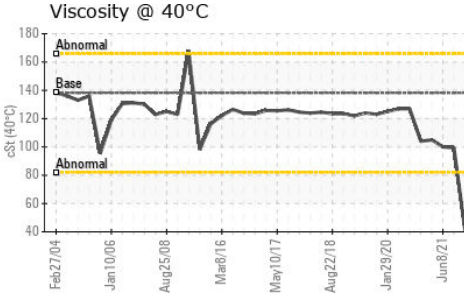
Aluminum (ppm)



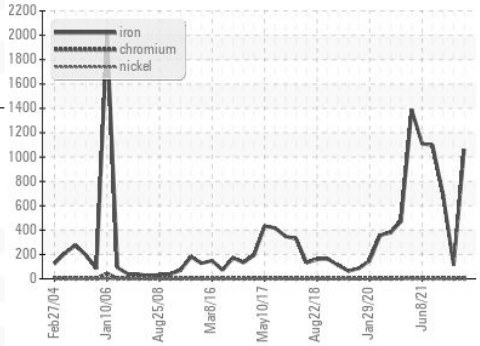
Aluminum (ppm)



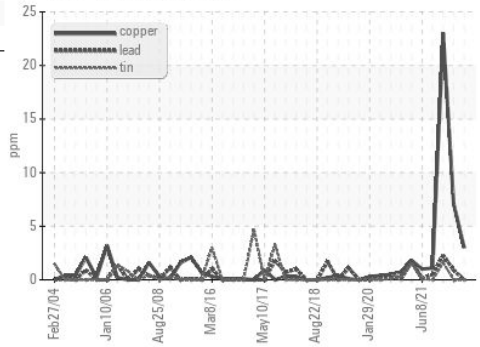
Viscosity @ 40°C



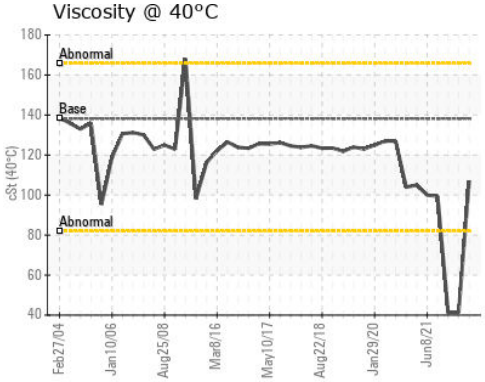
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
Certificate L2367

Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: WC0863021	**Received**	: 20 Nov 2023
Lab Number	: 06012820	**Diagnosed**	: 22 Nov 2023
Unique Number	: 10751964	**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)

TRADER CONSTRUCTION CO.
PO DRAWER 1578
NEW BERN, NC
US 28563
Contact: MIKE WYATT
mwyatt@traderconstruction.com
T: (252)633-1399
F: (252)638-4871