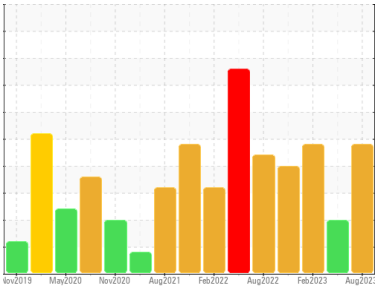
PROBLEM SUMMARY

Sample Rating Trend

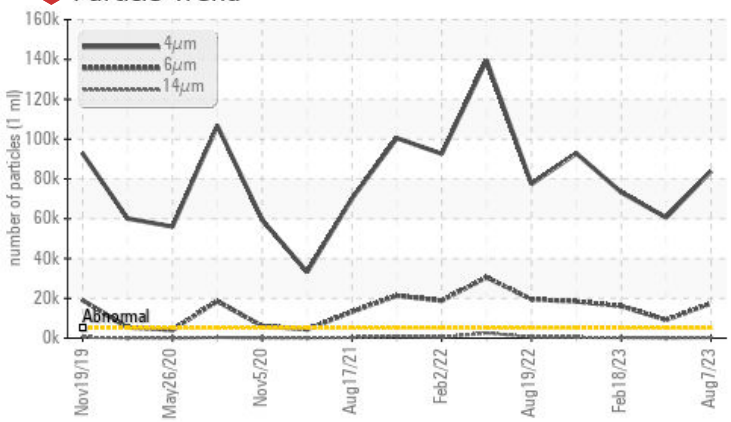


ISO

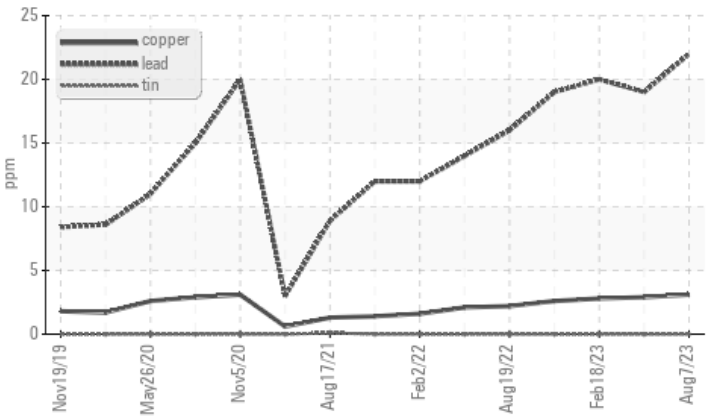
Machine Id
CAHE-V641765
Component
Hydraulic System
Fluid
MOBIL DTE 10 EXCEL 32 (--- GAL)

COMPONENT CONDITION SUMMARY

Particle Trend



Non-ferrous Metals



RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	SEVERE	SEVERE
Lead	ppm	ASTM D5185(m)	>20	▲ **22**	19	▲ 20
Particles >4µm		ASTM D7647	>5000	⬢ **83843**	⬢ 60573	⬢ 73248
Particles >6µm		ASTM D7647	>1300	⬢ **17434**	▲ 9126	⬢ 16162
Particles >14µm		ASTM D7647	>160	▲ **276**	111	▲ 280
Oil Cleanliness		ISO 4406 (c)	>19/17/14	⬢ **24/21/15**	⬢ 23/20/14	⬢ 23/21/15

Customer Id: EXXSTJ
Sample No.: PP13899816
Lab Number: 02577467
Test Package: MAR 2

To manage this report scan the QR code

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Kevin.Marson@wearcheck.com

To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Information Required	---	---	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.
Check Breathers	---	---	?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Seals	---	---	?	Check seals and/or filters for points of contaminant entry.

HISTORICAL DIAGNOSIS

ISO

21 May 2023 Diag: Wes Davis

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report

ISO

18 Feb 2023 Diag: Kevin Marson

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.Lead ppm levels are noted. All other component wear rates are normal. Particles >6µm are severely high. Particles >4µm are severely high. Oil Cleanliness are severely high. Particles >14µm are notably high. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report

ISO

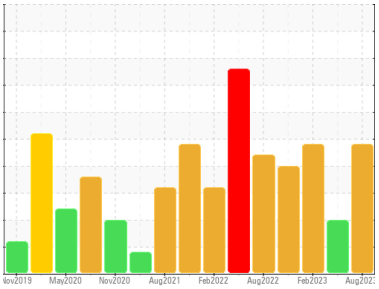
17 Nov 2022 Diag: Wes Davis

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.All component wear rates are normal. Particles >6µm are severely high. Particles >4µm are severely high. Oil Cleanliness are severely high. Particles >14µm are abnormally high. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Machine Id
CAHE-V641765
Component
Hydraulic System
Fluid
MOBIL DTE 10 EXCEL 32 (--- GAL)

DIAGNOSIS

Recommendation

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

Lead ppm levels are noted. All other component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PP13899816**	PP13867359	PP13836434
Sample Date		Client Info		**07 Aug 2023**	21 May 2023	18 Feb 2023
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**SEVERE**	SEVERE	SEVERE

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	**4**	3	3
Chromium	ppm	ASTM D5185(m)	>10	**2**	2	2
Nickel	ppm	ASTM D5185(m)	>10	**<1**	1	<1
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)		**0**	<1	0
Aluminum	ppm	ASTM D5185(m)	>10	**<1**	<1	<1
Lead	ppm	ASTM D5185(m)	>20	▲ **22**	19	▲ 20
Copper	ppm	ASTM D5185(m)	>20	**3**	3	3
Tin	ppm	ASTM D5185(m)	>10	**0**	0	0
Antimony	ppm	ASTM D5185(m)		**0**	0	0
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**0**	0	<1
Barium	ppm	ASTM D5185(m)		**0**	0	0
Molybdenum	ppm	ASTM D5185(m)		**0**	<1	0
Manganese	ppm	ASTM D5185(m)		**0**	0	0
Magnesium	ppm	ASTM D5185(m)		**<1**	<1	<1
Calcium	ppm	ASTM D5185(m)	120	**103**	106	111
Phosphorus	ppm	ASTM D5185(m)	475	**461**	458	475
Zinc	ppm	ASTM D5185(m)		**9**	8	7
Sulfur	ppm	ASTM D5185(m)	1275	**1284**	1239	1322
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

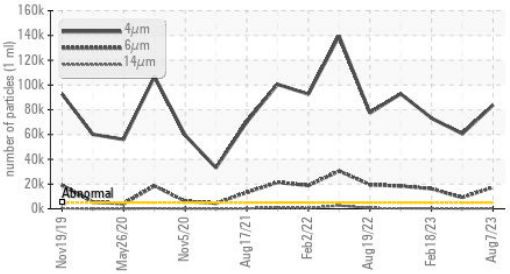
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	**6**	6	6
Sodium	ppm	ASTM D5185(m)		**<1**	1	1
Potassium	ppm	ASTM D5185(m)	>20	**<1**	0	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	⬢ **83843**	⬢ 60573	⬢ 73248
Particles >6µm		ASTM D7647	>1300	⬢ **17434**	▲ 9126	⬢ 16162
Particles >14µm		ASTM D7647	>160	▲ **276**	111	▲ 280
Particles >21µm		ASTM D7647	>40	**39**	12	22
Particles >38µm		ASTM D7647	>10	**1**	0	0
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	⬢ **24/21/15**	⬢ 23/20/14	⬢ 23/21/15

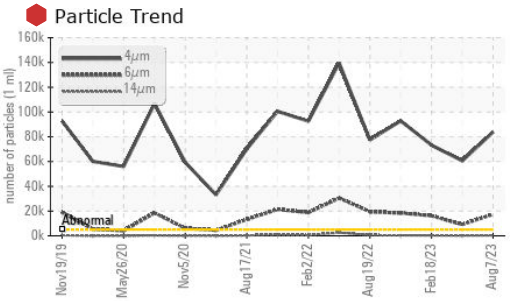
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		**0.15**	0.08	0.14

OIL ANALYSIS REPORT

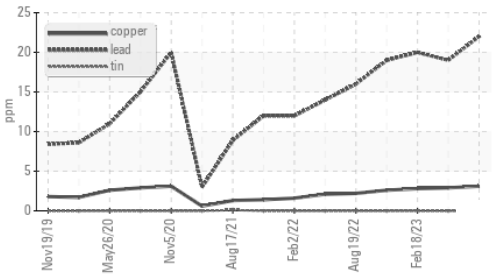
Particle Trend



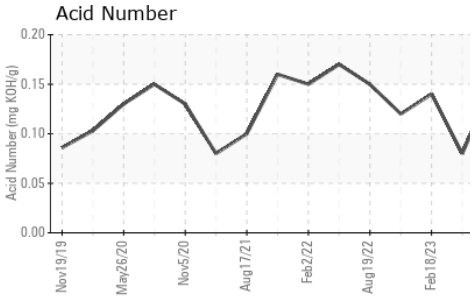
Particle Trend



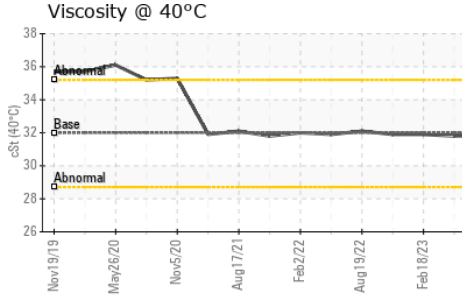
Non-ferrous Metals



Acid Number



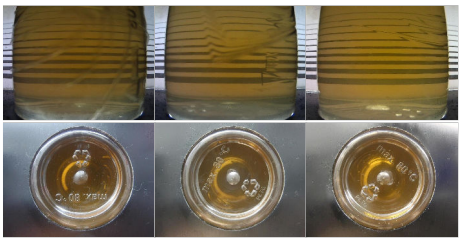
Viscosity @ 40°C



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	**VLITE**	VLITE	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*	>0.05	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

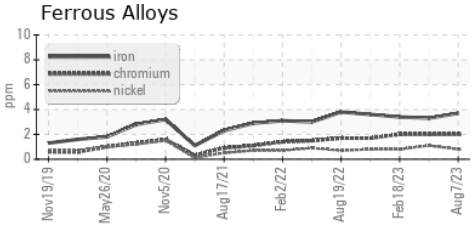
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	32	**31.8**	31.8	31.9

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

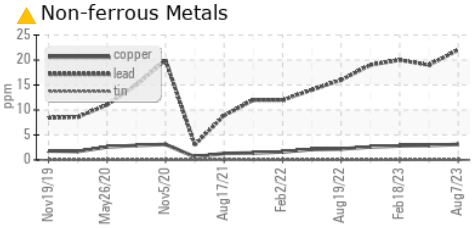


GRAPHS

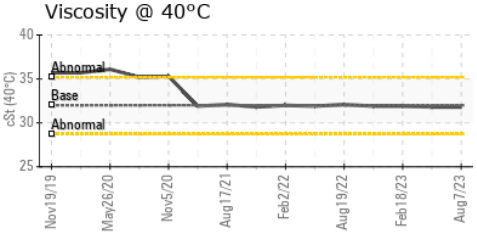
Ferrous Alloys



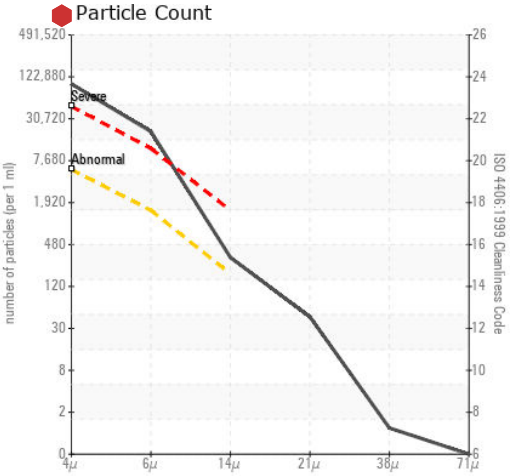
Non-ferrous Metals



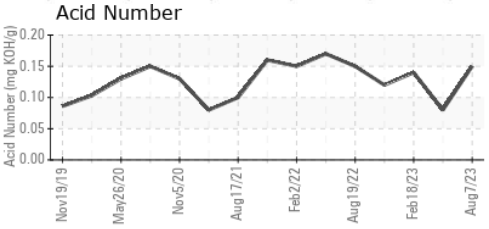
Viscosity @ 40°C



Particle Count



Acid Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PP13899816 **Received** : 22 Aug 2023
Lab Number : 02577467 **Diagnosed** : 23 Aug 2023
Unique Number : 5630527 **Diagnostician** : Kevin Marson
Test Package : MAR 2 (Additional Tests: TAN Man)

To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.

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