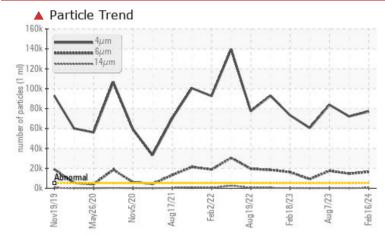


### **PROBLEM SUMMARY**

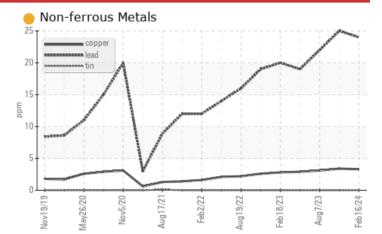
# CAHE-V641765

Component Hydraulic System Fluid MOBIL DTE 10 EXCEL 32 (--- GAL)

#### COMPONENT CONDITION SUMMARY







RECOMMENDATION

PROBLEMATIC TEST RESULTS									
Sample Status				SEVERE	SEVERE	SEVERE			
Particles >4µm		ASTM D7647	>5000	<b>A</b> 77008	<b>A</b> 72184	▲ 83843			
Particles >6µm		ASTM D7647	>1300	<b>16450</b>	<b>1</b> 4688	<b>1</b> 7434			
Particles >14µm		ASTM D7647	>160	<u> </u>	230	276			
Particles >21µm		ASTM D7647	>40	<u> </u>	25	39			
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>4</b> 23/21/16	▲ 23/21/15	<b>4</b> 24/21/15			
White Metal	scalar	Visual*	NONE	🔺 VLITE	NONE	NONE			
PrtFilter					no image	no image			

Customer Id: EXXSTJ Sample No.: PP13963656 Lab Number: 02625228 Test Package: MAR 2



To manage this report scan the QR code

*To discuss the diagnosis or test data:* Kevin Marson +1 (289)291-4644 x4644 Kevin.Marson@wearcheck.com

*To change component or sample information:* Gloria Gonzalez +1 (289)291-4643 x4643 gloria.gonzalez@wearcheck.com There are no recommended actions for this sample.

#### HISTORICAL DIAGNOSIS

#### 11 Nov 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. 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.



#### 07 Aug 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. 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

#### 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.





### **OIL ANALYSIS REPORT**

Sample Rating Trend

ISO

#### Machine Io CAHE-V641765 Component

**Hydraulic System** MOBIL DTE 10 EXCEL 32 (--- GAL)

#### DIAGNOSIS

SAMPLE INFORMATION method PP13931469 PP13899816 PP13963656 Sample Number **Client Info** 16 Feb 2024 07 Aug 2023 Sample Date Client Info 11 Nov 2023 0 0 0 Machine Age hrs **Client Info** Oil Age hrs Client Info 0 0 0 Oil Changed **Client Info** N/A N/A N/A SEVERE SEVERE Sample Status SEVERE WEAR METALS 3 4 Iron >20 3 ppm ASTM D5185(m) 2 2 2 Chromium ppm ASTM D5185(m) >10 Nickel ppm ASTM D5185(m) >10 <1 1 <1 Titanium ASTM D5185(m) 0 0 0 ppm 0 Silver ppm ASTM D5185(m) 0 <1 Aluminum ASTM D5185(m) >10 0 <1 <1 ppm >20 25 Lead ASTM D5185(m) 24 22 ppm 3 3 3 Copper ASTM D5185(m) >20 ppm Tin ppm ASTM D5185(m) >10 0 0 0 Antimony ASTM D5185(m) 0 0 0 ppm Vanadium ppm ASTM D5185(m) 0 0 0 Beryllium ASTM D5185(m) 0 0 0 ppm Cadmium ASTM D5185(m) 0 0 0 ppm **ADDITIVES** 0 <1 0 Boron ASTM D5185(m) ppm 0 0 Barium ppm ASTM D5185(m) <1 0 0 Molybdenum ASTM D5185(m) 0 ppm 0 0 0 Manganese ppm ASTM D5185(m) Magnesium ppm ASTM D5185(m) <1 <1 <1 Calcium ASTM D5185(m) 120 105 108 103 ppm 475 440 461 Phosphorus 438 ppm ASTM D5185(m) Zinc ASTM D5185(m) 7 8 9 ppm Sulfur 1275 1266 1292 1284 ppm ASTM D5185(m) ASTM D5185(m) Lithium <1 <1 <1 ppm CONTAMINANTS 5 4 6 Silicon >15 ppm ASTM D5185(m) Sodium ASTM D5185(m) <1 ppm <1 <1 Potassium ppm ASTM D5185(m) >20 <1 <1 <1 Water % ASTM D6304\* >0.05 0.024 ppm Water ASTM D6304\* >500 241 ppm FLUID CLEANLINESS history2 Particles >4µm ASTM D7647 >5000 **4** 77008 **A** 72184 ▲ 83843 Particles >6µm ASTM D7647 >1300 **16450 1**4688 ▲ 17434 Particles >14µm ASTM D7647 >160 457 230 276 Particles >21µm ASTM D7647 >40 90 25 39 >10 2 Particles >38µm ASTM D7647 6 1 Particles >71µm ASTM D7647 >3 1 0

1

ISO 4406 (c) >19/17/14 **4 23/21/16** 

#### Particle Filter (Magn: 100 x)



**Oil Cleanliness** 

24/21/15

23/21/15



0.00

Vov19/19

Water (KF)

Abnorma

ug17/21

CUCH

g19/22 eb18/23 ug7/23

## **OIL ANALYSIS REPORT**

Acid Number Acid	A Particle Count	FLUI
VISU Visu Visu White I Yellow Precipi Sit Debris Sand/I Appear Odor Emulsi Free W FLUI Visu White I Yellow Precipi Sit Debris Sand/I Visu White I Yellow Precipi Sit Debris Sand/I Visu White I Yellow Precipi Sit Debris Sand/I Visu Mite I Yellow Precipi Sit Debris Sand/I Visu Mite I Yellow Precipi Sit Debris Sand/I Visu Appear Odor Emulsi Free W FLUI Visc @ SAM Color Acid Number 020	122,880 -24	
Silt Debris Sand/E Appear Odor Emulsi Free W FLUI Visc @ SAM Odor Emulsi Free W FLUI Visc @ SAM Odor Emulsi Free W FLUI Visc @ SAM	22 8   7.680 Abnormal 20	
Silt Debris Sand/E Appear Odor Emulsi Free W FLUI Visc @ SAM Odor Emulsi Free W FLUI Visc @ SAM Odor Emulsi Free W FLUI Visc @ SAM		
Silt Debris Sand/E Appear Odor Emulsi Free W FLUI Visc @ SAM Odor Emulsi Free W FLUI Visc @ SAM Odor Emulsi Free W FLUI Visc @ SAM	to lean 120 - 114 min	Yellow
Silt Debris Sand/E Appear Odor Emulsi Free W FLUI Visc @ SAM Odor Emulsi Free W FLUI Visc @ SAM Odor Emulsi Free W FLUI Visc @ SAM	12 E	Precipi
Particle Trend Particle Trend	· · · · · · · · · · · · · · · · · · ·	Silt
Particle Trend Appear Odor Emulsi Free M FLUI Visc @ SAM Color Appear Odor Emulsi Free M FLUI Visc @ SAM Color Acid Number Odor Emulsi Free M FLUI Visc @ Color Acid Number		Debris
Appear Appear Odor Emulsi Free M FLUI Visc @ SAM Odor Emulsi Free M FLUI Visc @ SAM Color Appear Odor Emulsi Free M FLUI Visc @ SAM Appear Odor Emulsi Free M FLUI Visc @ SAM Appear Odor FLUI Mon Acid Number Odor FLUI Mon Freither Acid Number		Sand/E
Emulsi Free W FLU Visc @ SAM Color Acid Number 020		
Visc @ Visc @ SAM Visc @ SAM SAM SAM SAM SAM SAM SAM SAM	14UK +	Odor
Visc @ Visc @ SAM Visc @ SAM SAM SAM SAM SAM SAM SAM SAM	<sup>120k</sup> / <sub>β 100k</sub>	
Visc @ Visc @ SAM Visc @ SAM SAM SAM SAM SAM SAM SAM SAM		Free W
Visc @ Visc @ SAM Visc @ SAM SAM SAM SAM SAM SAM SAM SAM	50k	FLUI
Color Bottom Color C		
Non-ferrous Metals Color biology bio	Ok Abaomal	
Non-ferrous Metals Color biology bio	Vov19,119 Aay26,20,20 Nov5,20 Feb17/2 19,22 Feb18,23 Aug19,22 Feb18,23 Aug17,23	SAM
Acid Number		Calar
Acid Number		Color
Bottom Bottom Bottom Bottom PrtFilte Acid Number		
Acid Number	15	
Acid Number		Bottom
CZZ/61/00V Acid Number		
61/61/00/ Acid Number	5	
Acid Number		
Acid Number	ov19// ay26// Nov5// Feb2// eb18// Aug7//	PrtFilte
0.20		
	Acid Number	
Virginity (June of June of Jun		
0.10 0.05		
~ 문 0.05		
Ad	H00.15	

FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		0.08	0.09	0.15
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	🔺 VLITE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	VLITE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	VLITE
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	.2%	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	32	32.1	31.8	31.8
SAMPLE IMAGES	6	method	limit/base	current	history1	history2
						2



Feb18/23 Feb16/24 : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 ExxonMobil Canada East Ltd. Laboratory CALA Sample No. : PP13963656 Received : 28 Mar 2024 Hebron-Materials and Repair Coordin, Suite 1000, 100 New Gow Lab Number : 02625228 St. John`s, NL Tested : 01 Apr 2024 ISO 17025:2017 Accredited Laboratory Unique Number : 5750347 Diagnosed : 01 Apr 2024 - Kevin Marson CA A1C 6K3 Test Package : MAR 2 (Additional Tests: Bottom, BottomAnalysis, FilterPatch, KF, PrtFilter) Contact: Liam Maher To discuss this sample report, contact Customer Service at 1-800-268-2131. liam.m.maher@exxonmobil.com Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T: (709)273-3729 Validity of results and interpretation are based on the sample and information as supplied. F:

ug19/2

eb16/24