

OIL ANALYSIS REPORT

Sample Rating Trend DIRT

history1

WC0888072

12945

Changed

ATTENTION

NEG

7

0

0

0

0

<1

0

3

history1

history1

607

07 Mar 2024

history2

WC0734274

12338

Changed

NEG

48

1

3

<1

1

8

<1

34

NORMAL

474

05 Sep 2022

history2

history2

current

WC0899216

17 Jun 2024

13562

Changed

NEG

329

4

4

0

33

0

183

🔺 11

ABNORMAL

current

current

617

limit/base

limit/base

limit/base

>0.2

>800

>2

>10

>75



Recommendation

A Wear

Contamination

Fluid Condition

Machine Id CATERPILLAR 374F 8397 (S/N XWL00214) Left Final Drive Fluic

SAMPLE INFORMATION method

TDTO FLUID SAE 50 (--- QTS)

Sample Number **Client Info** We advise that you check all areas where dirt can Client Info Sample Date enter the system. The oil change at the time of Machine Age hrs **Client Info** sampling has been noted. Resample at the next Oil Age hrs **Client Info** service interval to monitor. Oil Changed **Client Info** Sample Status Bearing and/or bushing wear is indicated. CONTAMINATION method Elemental levels of silicon (Si) and aluminum (Al) Water WC Method indicate alumina-silicate (coarse dirt) ingress. WEAR METALS method Iron ppm ASTM D5185m The oil viscosity is lower than normal. This plus the additive levels indicates the addition of a different Chromium ASTM D5185m >10 ppm brand, or type of oil. Confirm oil type. Nickel ppm ASTM D5185m >5 Titanium ASTM D5185m >15 ppm Silver ASTM D5185m ppm Aluminum ppm ASTM D5185m >75 Lead ASTM D5185m ppm Copper ASTM D5185m ppm Tin ppm ASTM D5185m >8 Va С В Ba Μ Μ Ma Ca Pł Zi Sι Si S P

Tin	ppm	ASTM D5185m	>8	8	<1	1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	<1
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	37	112	0	50
Barium	ppm	ASTM D5185m	7	0	0	0
Molybdenum	ppm	ASTM D5185m	5	0	3	1
Manganese	ppm	ASTM D5185m		4	<1	<1
Magnesium	ppm	ASTM D5185m	40	6	37	11
Calcium	ppm	ASTM D5185m	2650	768	3312	3162
Phosphorus	ppm	ASTM D5185m	1050	487	986	891
Zinc	ppm	ASTM D5185m	1075	272	1160	933
Sulfur	ppm	ASTM D5185m	5750	5393	6106	3727
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>400	226	8	37
Silicon Sodium	ppm ppm	ASTM D5185m ASTM D5185m	>400	226 4	8	37 0
Silicon Sodium Potassium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	>400 >20	226 4 9	8 2 0	37 0 0
Silicon Sodium Potassium VISUAL	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method	>400 >20 limit/base	226 4 9 current	8 2 0 history1	37 0 0 history2
Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm scalar	ASTM D5185m ASTM D5185m ASTM D5185m method *Visual	>400 >20 limit/base NONE	226 4 9 current NONE	8 2 0 history1 NONE	37 0 0 history2 NONE
Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m method *Visual	>400 ///////////////////////////////////	226 4 9 current NONE NONE	8 2 0 history1 NONE NONE	37 0 0 history2 NONE NONE
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m method *Visual *Visual *Visual	>400 ///////////////////////////////////	226 4 9 current NONE NONE NONE	8 2 0 history1 NONE NONE NONE	37 0 0 history2 NONE NONE NONE
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual	>400 ///////////////////////////////////	226 4 9 current NONE NONE NONE MODER	8 2 0 history1 NONE NONE NONE NONE	37 0 0 history2 NONE NONE NONE NONE
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual	>400 ///////////////////////////////////	226 4 9 current NONE NONE NONE MODER NONE	8 2 0 history1 NONE NONE NONE NONE	37 0 0 history2 NONE NONE NONE NONE NONE
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual	>400 ///////////////////////////////////	226 4 9 Current NONE NONE NONE NONE NONE NONE	8 2 0 history1 NONE NONE NONE NONE NONE NONE	37 0 0 history2 NONE NONE NONE NONE NONE
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>400 ///////////////////////////////////	226 4 9 current NONE NONE MODER NONE NONE NONE NONE	8 2 0 history1 NONE NONE NONE NONE NONE NONE NONE NON	37 0 0 history2 NONE NONE NONE NONE NONE NONE NONE
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	ppm ppm scalar scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>400 ///////////////////////////////////	226 4 9 current NONE NONE MODER NONE NONE NONE NONE NONE NORML	8 2 0 history1 NONE NONE NONE NONE NONE NONE NONE NON	37 0 0 history2 NONE NONE NONE NONE NONE NORML NORML
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>400 ///////////////////////////////////	226 4 9 current NONE NONE MODER NONE NONE NONE NORE NORML NORML NEG	8 2 0 history1 NONE NONE NONE NONE NONE NONE NONE NON	37 0 0 history2 NONE NONE NONE NONE NONE NONE NORML NORML NEG
Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor Emulsified Water Free Water	ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>400 ///////////////////////////////////	226 4 9 current NONE NONE MODER NONE NONE NORE NORML NORML NEG NEG	8 2 0 history1 NONE NONE NONE NONE NONE NORML NORML NORML NEG NEG	37 0 0 history2 NONE NONE NONE NONE NONE NONE NORML NORML NEG NEG



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