



OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
CATERPILLAR 299D SKIDSTEER 040-0019 (S/N CAT0299DAFD204356)
 Component
Right Final Drive
 Fluid
SCHAEFFER SCHAEFFER 293 MOLY 75W90 (1 QTS)

RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

WEAR

Gear wear is indicated.

CONTAMINATION

There is no indication of any contamination in the oil.

FLUID CONDITION

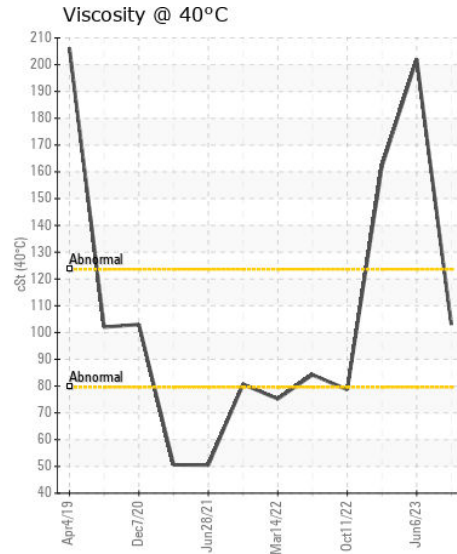
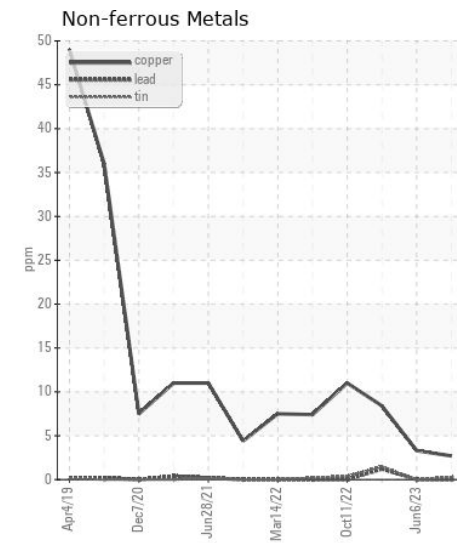
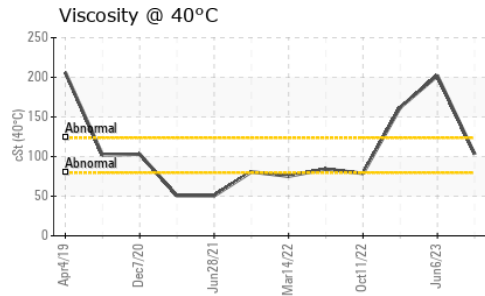
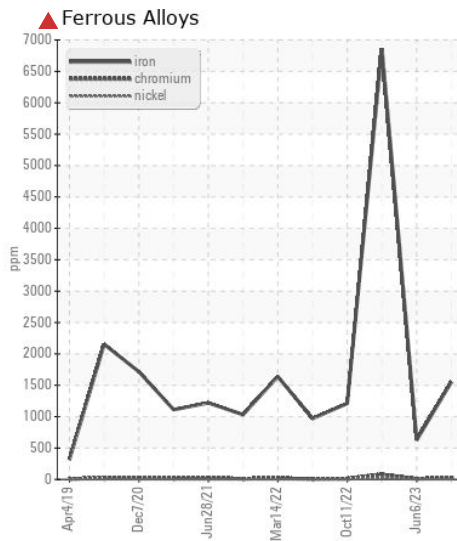
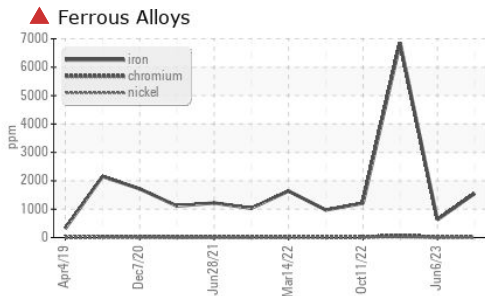
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0815217	WC0815192	WC0750660
Sample Date		Client Info		13 Jul 2023	06 Jun 2023	16 Mar 2023
Machine Age	hrs	Client Info		9565	9154	8422
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changed	Changed	Changed
Filter Changed		Client Info		Not Changed	Changed	Changed
Sample Status				SEVERE	ABNORMAL	SEVERE

Iron	ppm	ASTM D5185m	>800	▲ 1552	▲ 628	▲ 6860
Chromium	ppm	ASTM D5185m	>10	▲ 21	▲ 11	▲ 81
Nickel	ppm	ASTM D5185m	>5	1	0	▲ 12
Titanium	ppm	ASTM D5185m	>15	<1	<1	▲ 15
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>75	6	4	● 231
Lead	ppm	ASTM D5185m	>10	0	0	1
Copper	ppm	ASTM D5185m	>75	3	3	8
Tin	ppm	ASTM D5185m	>8	<1	0	2
Vanadium	ppm	ASTM D5185m		0	0	1
White Metal	scalar	*Visual	NONE	NONE	MODER	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

Silicon	ppm	ASTM D5185m	>400	26	19	▲ 1352
Potassium	ppm	ASTM D5185m	>20	4	7	36
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	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	NEG	NEG	▲ 0.2%

Sodium	ppm	ASTM D5185m		4	10	8
Boron	ppm	ASTM D5185m		45	190	112
Barium	ppm	ASTM D5185m		0	10	0
Molybdenum	ppm	ASTM D5185m		177	<1	268
Manganese	ppm	ASTM D5185m		20	13	62
Magnesium	ppm	ASTM D5185m		2	2	177
Calcium	ppm	ASTM D5185m		39	32	2447
Phosphorus	ppm	ASTM D5185m		689	1263	689
Zinc	ppm	ASTM D5185m		44	39	47
Sulfur	ppm	ASTM D5185m		17061	25056	16895
Visc @ 40°C	cSt	ASTM D445		103	202	162



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0815217
Lab Number : 05912054
Unique Number : 10578706
Test Package : CONST
Received : 31 Jul 2023
Tested : 01 Aug 2023
Diagnosed : 02 Aug 2023 - Sean Felton

SHIMMICK CONSTRUCTION
 5535 TRAILHEAD DRIVE
 CHATTANOOGA, TN
 US 37415
 Contact: DANIEL LISELLA
 daniel.lisella@shimmick.com

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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