

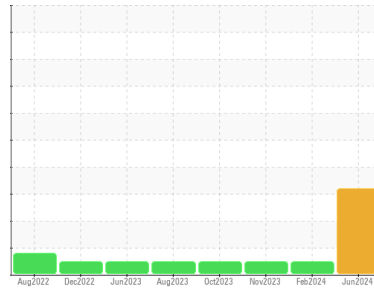


OIL ANALYSIS REPORT



Machine Id
CATERPILLAR D6 10030 (S/N JJ601009)
 Component
Hydraulic System
 Fluid
 {not provided} (--- GAL)

Sample Rating Trend



DIAGNOSIS

Recommendation
 We advise that you check all areas where dirt can enter the system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear
 The iron level is abnormal. All other component wear rates are normal.

Contamination
 Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The amount and size of particulates present in the system are acceptable.

Fluid Condition
 The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0899261	WC0888054	WC0879400
Sample Date	Client Info		04 Jun 2024	06 Feb 2024	20 Nov 2023
Machine Age	hrs	Client Info	3880	3483	2920
Oil Age	hrs	Client Info	3880	3483	2920
Oil Changed	Client Info		Changed	Not Changd	Not Changd
Sample Status			ABNORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	▲ 23	19	16
Chromium	ppm	ASTM D5185m >10	2	1	<1
Nickel	ppm	ASTM D5185m >10	<1	0	0
Titanium	ppm	ASTM D5185m	<1	<1	<1
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >10	● 17	15	13
Lead	ppm	ASTM D5185m >10	3	2	2
Copper	ppm	ASTM D5185m >75	19	17	16
Tin	ppm	ASTM D5185m >10	<1	<1	0
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	7	7	6
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	<1	<1	0
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	11	8	8
Calcium	ppm	ASTM D5185m	435	406	369
Phosphorus	ppm	ASTM D5185m	723	703	684
Zinc	ppm	ASTM D5185m	952	879	860
Sulfur	ppm	ASTM D5185m	1979	1734	1723

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	▲ 33	27	24
Sodium	ppm	ASTM D5185m	1	3	3
Potassium	ppm	ASTM D5185m >20	3	0	<1

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	501	821	686
Particles >6µm	ASTM D7647	>1300	79	87	160
Particles >14µm	ASTM D7647	>160	8	10	16
Particles >21µm	ASTM D7647	>40	3	3	4
Particles >38µm	ASTM D7647	>10	0	0	0
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	16/13/10	17/14/10	17/14/11

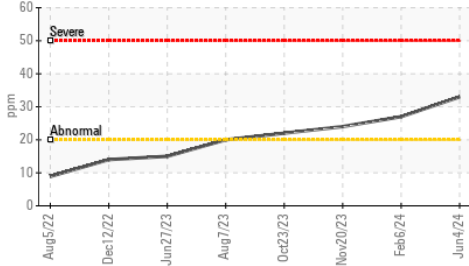
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.73	0.80	0.69

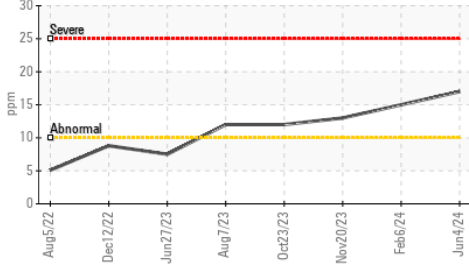


OIL ANALYSIS REPORT

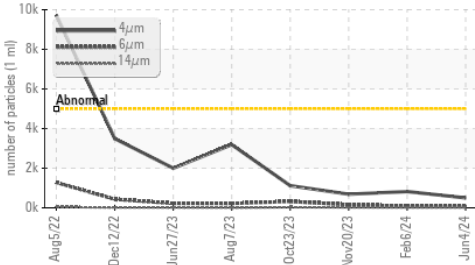
▲ Silicon (ppm)



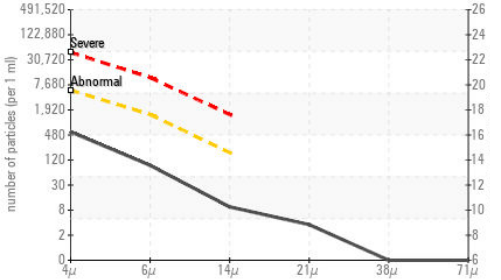
● Aluminum (ppm)



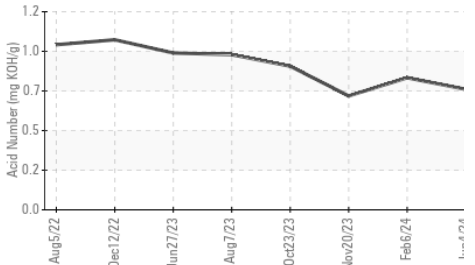
▲ Particle Trend



Particle Count



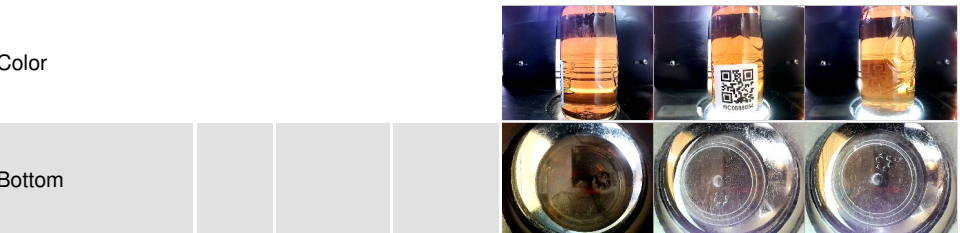
Acid Number



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

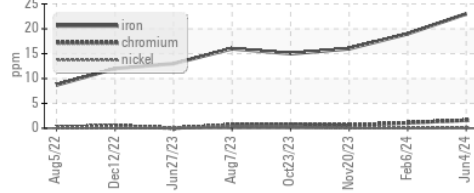
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	42.9	42.6	42.8

SAMPLE IMAGES

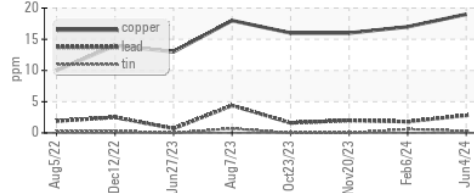


GRAPHS

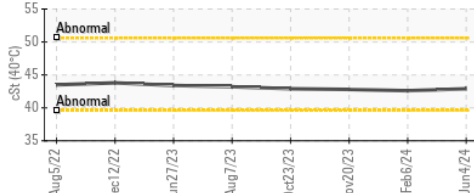
▲ Ferrous Alloys



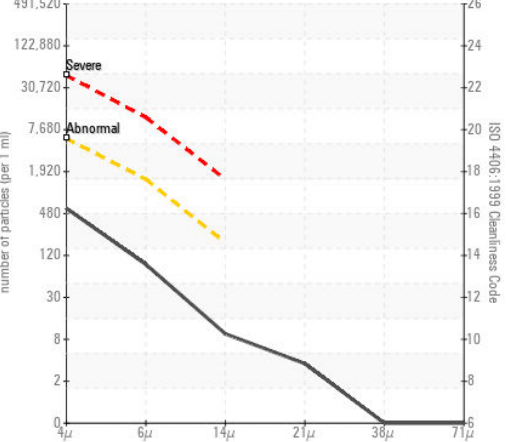
Non-ferrous Metals



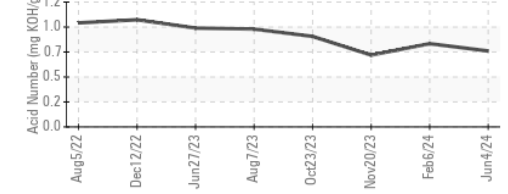
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0899261 **Received** : 07 Jun 2024
Lab Number : 06202661 **Tested** : 10 Jun 2024
Unique Number : 11070122 **Diagnosed** : 10 Jun 2024 - Don Baldrige
Test Package : CONST

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

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)