



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Machine Id  
**CATERPILLAR D2 LGP DZ2428 (S/N 0XKR00229)**  
Component  
**Hydraulic System**  
Fluid  
**CAT HYDO (--- GAL)**

## RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor. ( Customer Sample Comment: Recheck with different method )

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>DC0033775</b>	DC0033766	---
Sample Date		Client Info		<b>28 Feb 2024</b>	16 Feb 2024	---
Machine Age	hrs	Client Info		<b>1034</b>	1020	---
Oil Age	hrs	Client Info		<b>1034</b>	1020	---
Filter Age	hrs	Client Info		<b>0</b>	1020	---
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	---
Filter Changed		Client Info		<b>Not Changd</b>	Changed	---
Sample Status				<b>ABNORMAL</b>	SEVERE	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	<b>5</b>	4	---
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	<1	---
Titanium	ppm	ASTM D5185m		<b>0</b>	0	---
Silver	ppm	ASTM D5185m		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>10	<b>&lt;1</b>	2	---
Lead	ppm	ASTM D5185m	>10	<b>0</b>	2	---
Copper	ppm	ASTM D5185m	>75	<b>8</b>	8	---
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

## CONTAMINATION

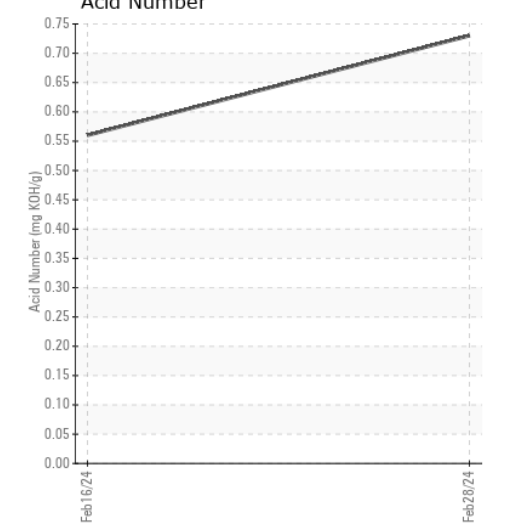
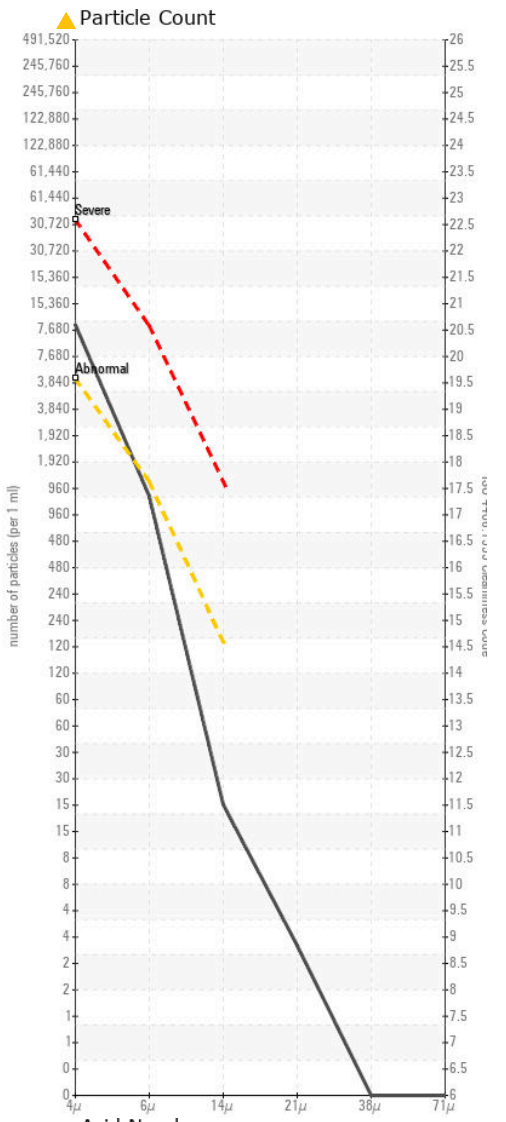
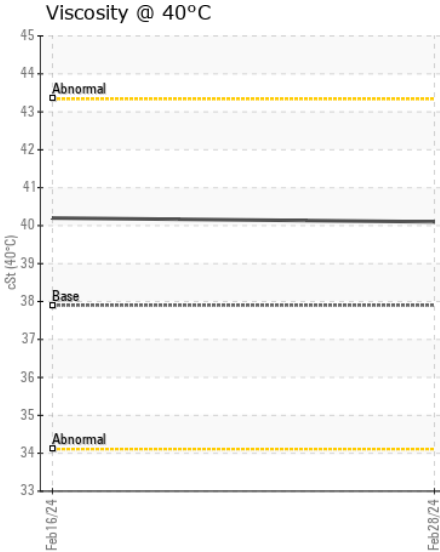
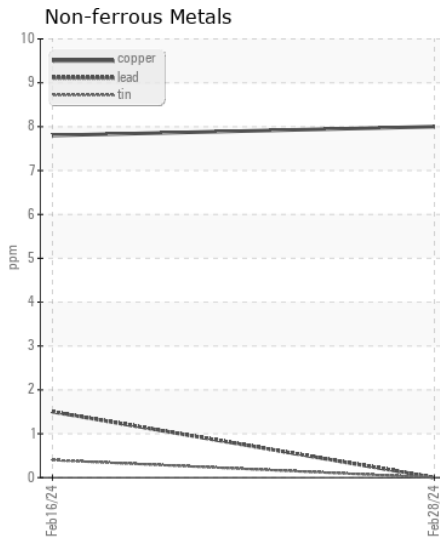
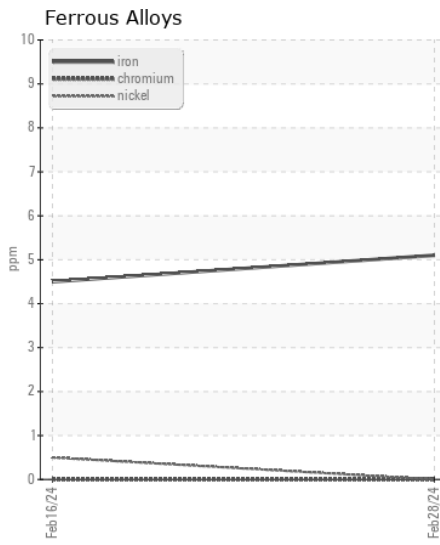
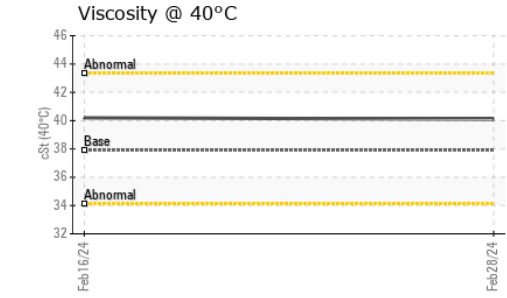
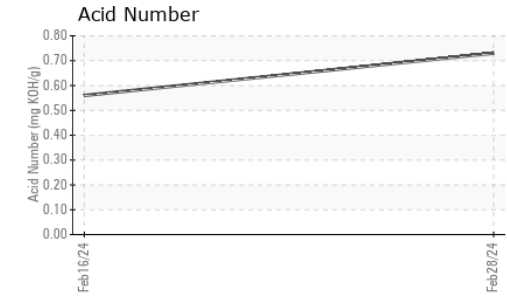
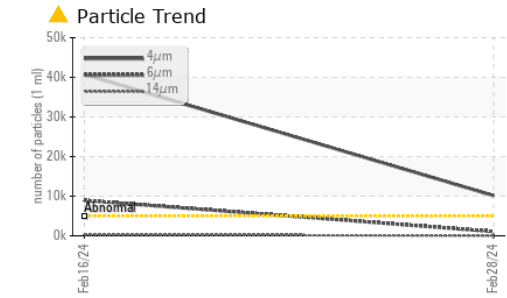
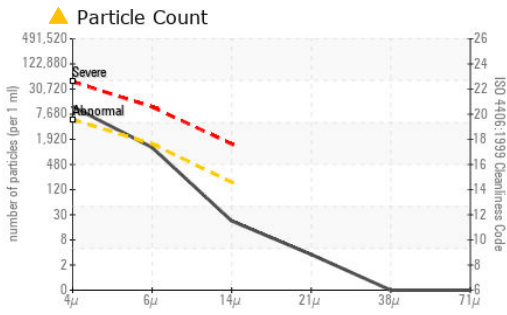
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>13</b>	14	---
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	4	---
Water		WC Method	>0.1	<b>NEG</b>	NEG	---
Particles >4µm		ASTM D7647	>5000	<b>▲ 10142</b>	▲ 40737	---
Particles >6µm		ASTM D7647	>1300	<b>1074</b>	▲ 8930	---
Particles >14µm		ASTM D7647	>160	<b>19</b>	● 296	---
Particles >21µm		ASTM D7647	>40	<b>3</b>	55	---
Particles >38µm		ASTM D7647	>10	<b>0</b>	0	---
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>▲ 21/17/11</b>	▲ 23/20/15	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	---

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>1</b>	2	---
Boron	ppm	ASTM D5185m		<b>0</b>	0	---
Barium	ppm	ASTM D5185m		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	---
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	---
Magnesium	ppm	ASTM D5185m		<b>1</b>	4	---
Calcium	ppm	ASTM D5185m		<b>146</b>	152	---
Phosphorus	ppm	ASTM D5185m	1100	<b>639</b>	683	---
Zinc	ppm	ASTM D5185m	1210	<b>811</b>	913	---
Sulfur	ppm	ASTM D5185m		<b>1522</b>	1647	---
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.73</b>	0.56	---
Visc @ 40°C	cSt	ASTM D445	37.9	<b>40.1</b>	40.2	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DC0033775 **Received** : 01 Mar 2024  
**Lab Number** : 06106018 **Tested** : 04 Mar 2024  
**Unique Number** : 10909515 **Diagnosed** : 05 Mar 2024 - Don Baldrige  
**Test Package** : MOB 2

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)

**COMER CONSTRUCTION**

2100 SLADE LANE  
 FOREST HILL, MD  
 US 21050

Contact: DONALD FOX  
 dfox@comerconstruction.com

T: (443)269-1379  
 F: (410)638-0289