



ASCENDUM

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Area
Ascendum Machinery/250 Hour CSA
Machine Id
CATERPILLAR D5 2140 (S/N Z6A00209)
Component
Hydraulic System
Fluid
VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)

RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0007819	---	---
Sample Date		Client Info		19 Mar 2024	---	---
Machine Age	hrs	Client Info		3881	---	---
Oil Age	hrs	Client Info		3881	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Not Chngd	---	---
Filter Changed		Client Info		Not Chngd	---	---
Sample Status				ABNORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	21	---	---
Chromium	ppm	ASTM D5185m	>10	<1	---	---
Nickel	ppm	ASTM D5185m	>10	0	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>10	2	---	---
Lead	ppm	ASTM D5185m	>10	0	---	---
Copper	ppm	ASTM D5185m	>75	1	---	---
Tin	ppm	ASTM D5185m	>10	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

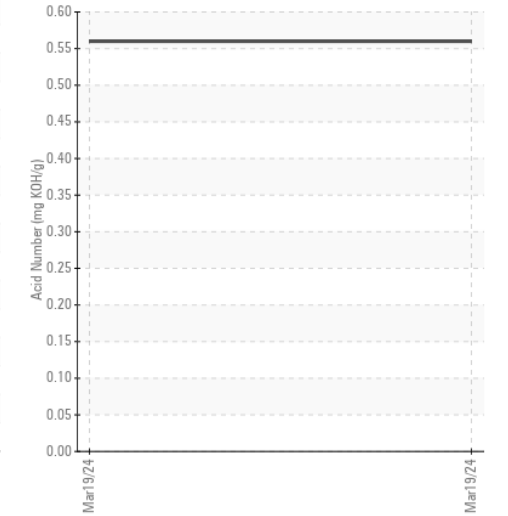
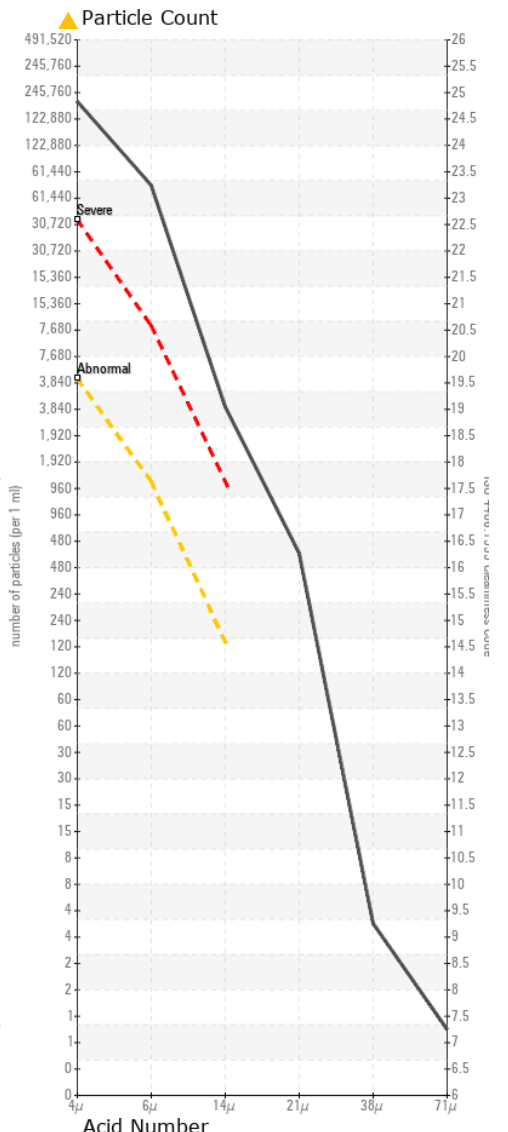
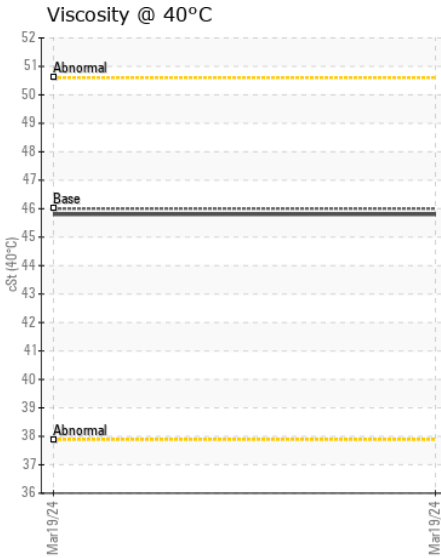
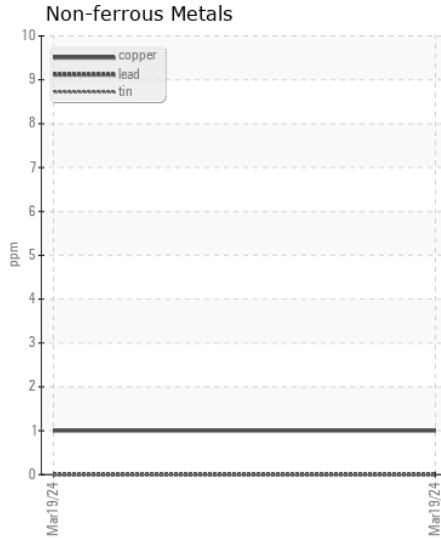
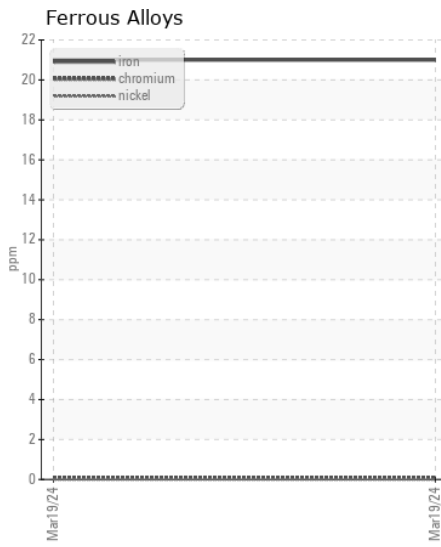
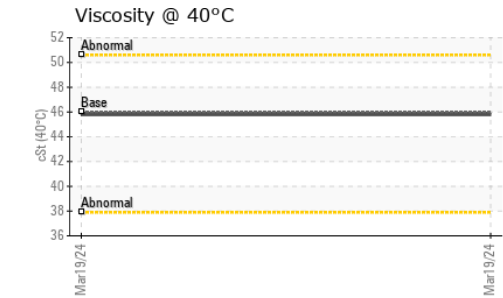
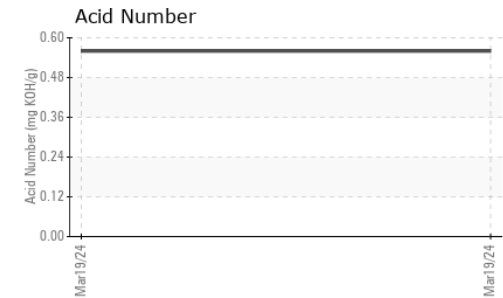
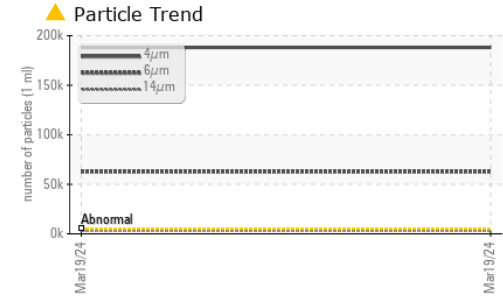
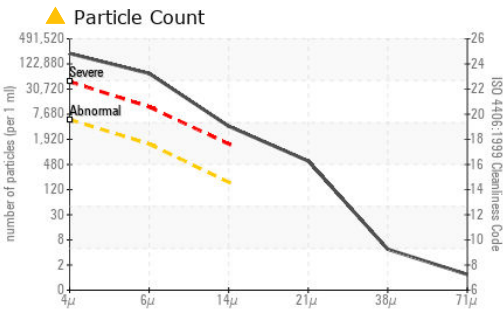
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>20	8	---	---
Potassium	ppm	ASTM D5185m	>20	0	---	---
Water		WC Method	>0.1	NEG	---	---
Particles >4µm		ASTM D7647	>5000	▲ 188124	---	---
Particles >6µm		ASTM D7647	>1300	▲ 62714	---	---
Particles >14µm		ASTM D7647	>160	▲ 3456	---	---
Particles >21µm		ASTM D7647	>40	▲ 510	---	---
Particles >38µm		ASTM D7647	>10	4	---	---
Particles >71µm		ASTM D7647	>3	1	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 25/23/19	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	LIGHT	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.1	NEG	---	---

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<1	---	---
Boron	ppm	ASTM D5185m	14	8	---	---
Barium	ppm	ASTM D5185m	0.0	0	---	---
Molybdenum	ppm	ASTM D5185m	0.0	1	---	---
Manganese	ppm	ASTM D5185m	0.0	<1	---	---
Magnesium	ppm	ASTM D5185m	2.6	2	---	---
Calcium	ppm	ASTM D5185m	49	378	---	---
Phosphorus	ppm	ASTM D5185m	354	403	---	---
Zinc	ppm	ASTM D5185m	419	519	---	---
Sulfur	ppm	ASTM D5185m	3719	2694	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.56	---	---
Visc @ 40°C	cSt	ASTM D445	46	45.8	---	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0007819 **Received** : 21 Mar 2024
Lab Number : 06124810 **Tested** : 22 Mar 2024
Unique Number : 10938961 **Diagnosed** : 24 Mar 2024 - Don Baldrige
Test Package : CONST

TRIANGLE GRADING AND PAVING INC
 1521 Huffman Mill Rd
 BURLINGTON, NC
 US 27216
 Contact: KAREN HILLIARD
 khilliard@trianglegradingpaving.com
 T: (336)584-1745
 F: (336)584-0145

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)