



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
CASE MAGNUM 220 JJAM0220TKRH01067
Component
Front Left Planetary
Fluid
GEAR OIL SAE 90W140 (5 QTS)

RECOMMENDATION

We advise that you check all areas where dirt can enter the system.
We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JCB005581	---	---
Sample Date		Client Info		01 Feb 2024	---	---
Machine Age	hrs	Client Info		6983	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ABNORMAL	---	---

WEAR

Gear wear is indicated. The high ferrous density (PQ) index indicates that abnormal wear is occurring.

PQ		ASTM D8184		▲ 1023	---	---
Iron	ppm	ASTM D5185m	>500	▲ 615	---	---
Chromium	ppm	ASTM D5185m	>10	2	---	---
Nickel	ppm	ASTM D5185m	>10	<1	---	---
Titanium	ppm	ASTM D5185m		2	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>25	▲ 35	---	---
Lead	ppm	ASTM D5185m	>25	0	---	---
Copper	ppm	ASTM D5185m	>75	0	---	---
Tin	ppm	ASTM D5185m	>10	<1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

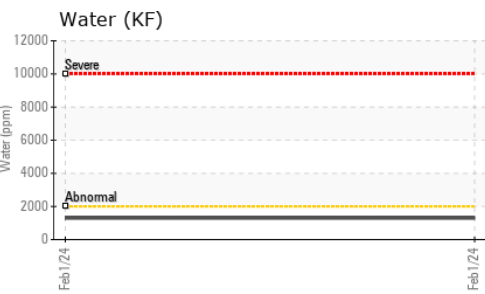
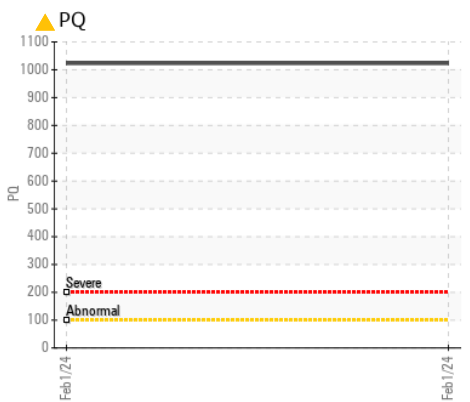
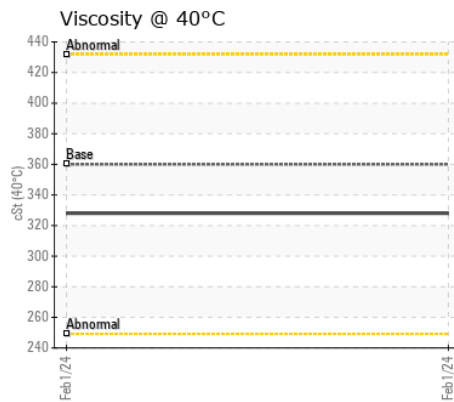
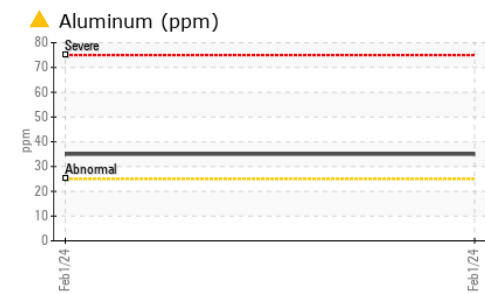
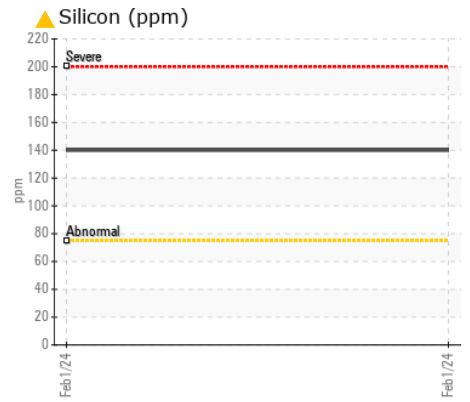
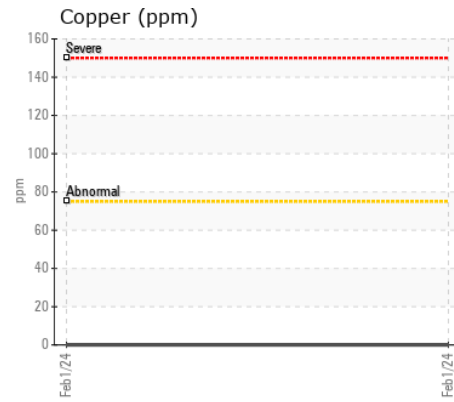
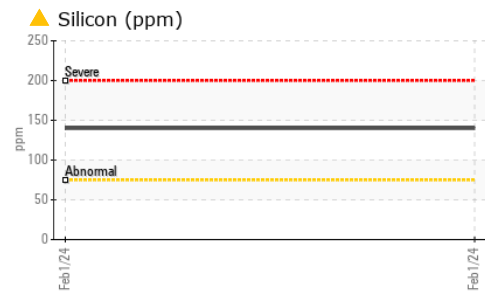
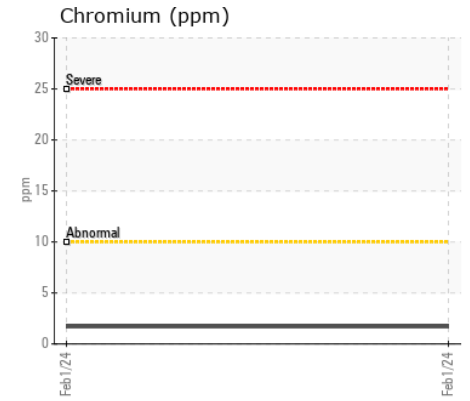
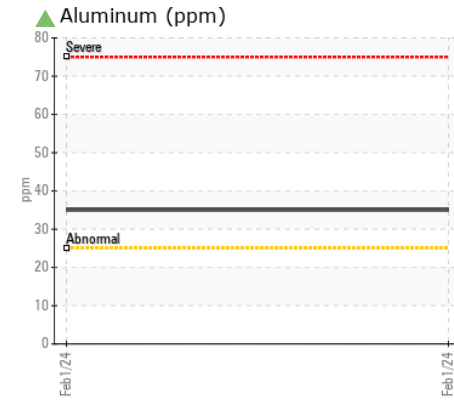
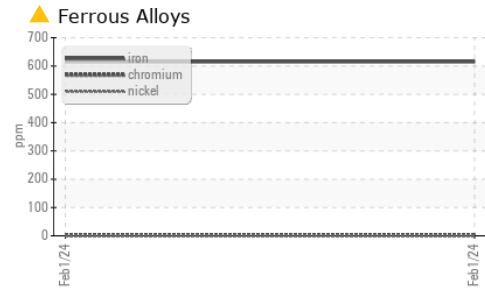
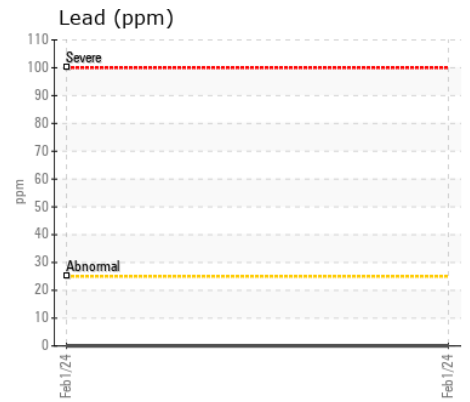
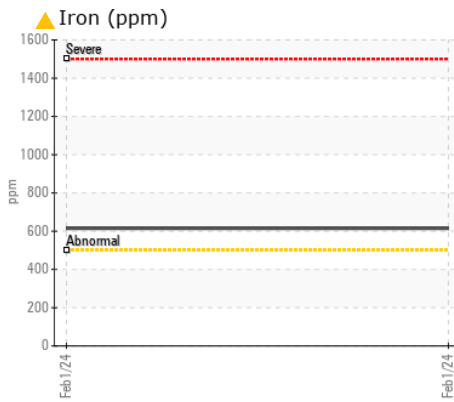
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>75	▲ 140	---	---
Potassium	ppm	ASTM D5185m	>20	10	---	---
Water	%	ASTM D6304	>0.2	0.130	---	---
ppm Water	ppm	ASTM D6304	>2000	1300	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	0.2%	---	---

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		8	---	---
Boron	ppm	ASTM D5185m	400	249	---	---
Barium	ppm	ASTM D5185m	200	4	---	---
Molybdenum	ppm	ASTM D5185m	12	0	---	---
Manganese	ppm	ASTM D5185m		4	---	---
Magnesium	ppm	ASTM D5185m	12	5	---	---
Calcium	ppm	ASTM D5185m	150	50	---	---
Phosphorus	ppm	ASTM D5185m	1650	1072	---	---
Zinc	ppm	ASTM D5185m	125	32	---	---
Sulfur	ppm	ASTM D5185m	22500	19229	---	---
Visc @ 40°C	cSt	ASTM D445	360	328	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : JCB005581

Lab Number : 06083921

Unique Number : 10871366

Test Package : MOB 1 (Additional Tests: KF, PQ)

Received : 08 Feb 2024

Tested : 09 Feb 2024

Diagnosed : 11 Feb 2024 - Don Baldrige

N & S TRACTOR CO INC - STOCKTON

1340 W CHARTER WAY

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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)