



WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	MARGINAL

Area

[9048]

Machine Id

ATLAS COPCO D60 G19SED0249

Component

Rear Rear Diesel Engine

Fluid

JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (10 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: 9048)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0219702	JR0162644	---
Sample Date		Client Info		27 Jun 2024	12 Jun 2023	---
Machine Age	hrs	Client Info		9048	1725	---
Oil Age	hrs	Client Info		7323	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				MARGINAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	18	21	---
Chromium	ppm	ASTM D5185m	>20	<1	<1	---
Nickel	ppm	ASTM D5185m	>4	0	<1	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>20	3	4	---
Lead	ppm	ASTM D5185m	>40	2	0	---
Copper	ppm	ASTM D5185m	>330	9	240	---
Tin	ppm	ASTM D5185m	>15	0	<1	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

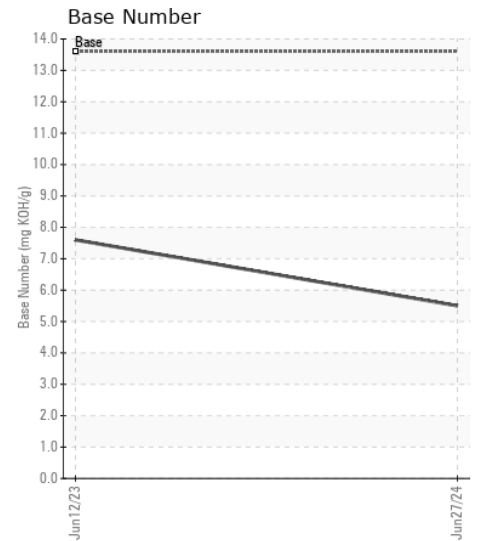
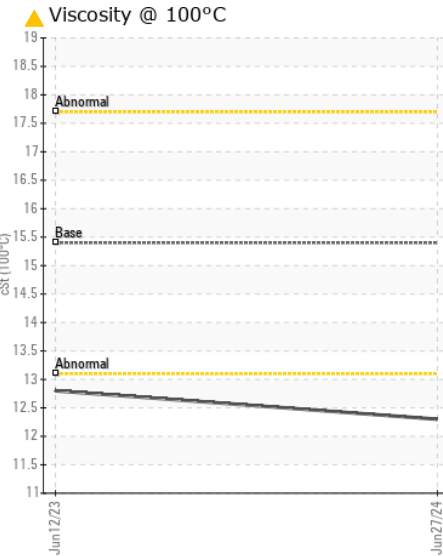
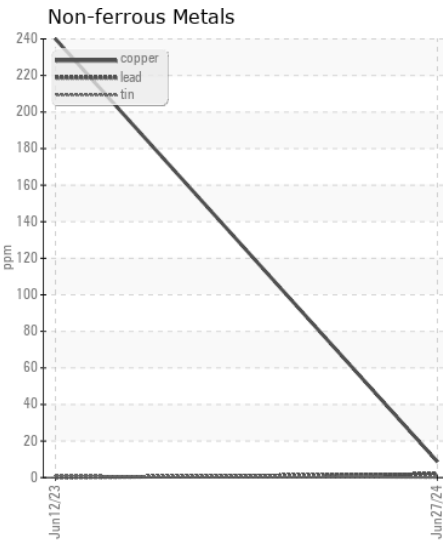
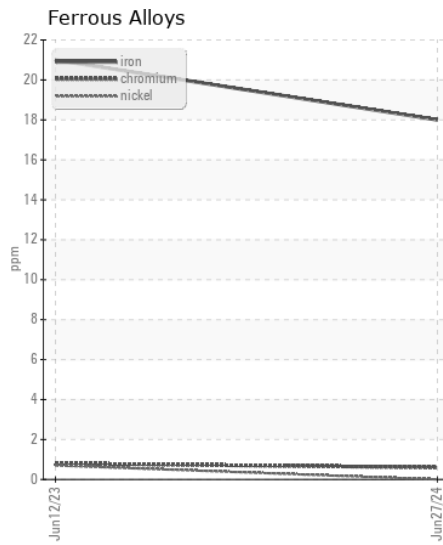
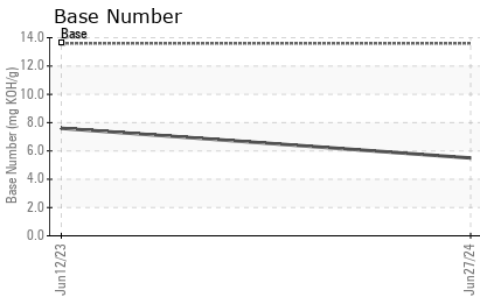
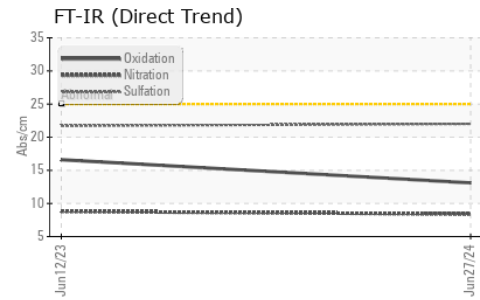
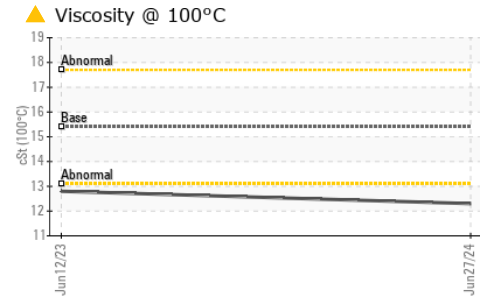
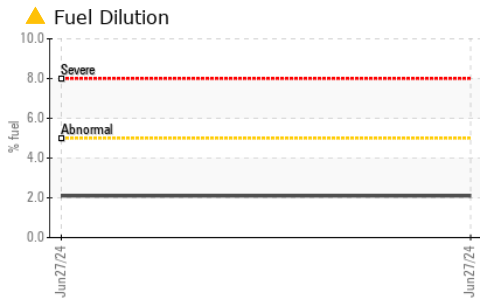
Light fuel dilution occurring.

Silicon	ppm	ASTM D5185m	>25	8	8	---
Potassium	ppm	ASTM D5185m	>20	2	2	---
Fuel	%	ASTM D3524	>5	▲ 2.1	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.4	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	8.4	8.8	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.0	21.7	---
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	>0.2	NEG	NEG	---

FLUID CONDITION

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m		2	1	---
Boron	ppm	ASTM D5185m		11	63	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		54	92	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m		208	473	---
Calcium	ppm	ASTM D5185m		2622	1855	---
Phosphorus	ppm	ASTM D5185m		1035	1000	---
Zinc	ppm	ASTM D5185m		1336	1285	---
Sulfur	ppm	ASTM D5185m		4762	3862	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.1	16.6	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	5.5	7.6	---
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 12.3	12.8	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0219702 **Received** : 28 Jun 2024
Lab Number : 06223270 **Tested** : 03 Jul 2024
Unique Number : 11101467 **Diagnosed** : 03 Jul 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

JRE - CHARLOTTE
 9550 STATESVILLE ROAD
 CHARLOTTE, NC
 US 28269
 Contact: James Ball
 JBall@jamesriverequipment.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)

T:
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