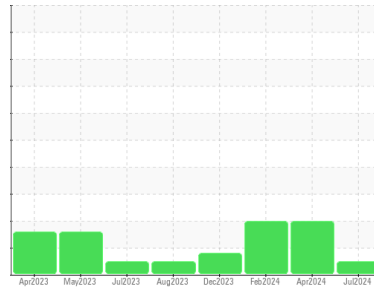




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
JOHN DEERE 8R310 11614 (S/N 1RW8310DTNB208641)
 Component
Diesel Engine
 Fluid
DISEL ENGINE OIL SAE 40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0899091	WC0913181	WC0888151
Sample Date	Client Info			08 Jul 2024	09 Apr 2024	07 Feb 2024
Machine Age	hrs	Client Info		6473	5796	5024
Oil Age	hrs	Client Info		677	772	866
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				NORMAL	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>2.1		<1.0	<1.0	<1.0
Water	WC Method	>0.21		NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>51	49	▲ 65	▲ 113
Chromium	ppm	ASTM D5185m	>11	<1	1	2
Nickel	ppm	ASTM D5185m	>5	3	1	6
Titanium	ppm	ASTM D5185m		<1	<1	3
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	2	3	3
Lead	ppm	ASTM D5185m	>26	2	6	10
Copper	ppm	ASTM D5185m	>26	6	13	12
Tin	ppm	ASTM D5185m	>4	0	1	2
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	0	4	7
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	60	60	63
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m	450	1002	933	967
Calcium	ppm	ASTM D5185m	3000	1230	1311	1208
Phosphorus	ppm	ASTM D5185m	1150	1032	1072	1030
Zinc	ppm	ASTM D5185m	1350	1317	1363	1282
Sulfur	ppm	ASTM D5185m	4250	3066	3057	2361

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>22	4	6	8
Sodium	ppm	ASTM D5185m	>216	35	● 50	● 65
Potassium	ppm	ASTM D5185m	>20	12	11	10
Glycol	%	*ASTM D2982		NEG	NEG	NEG

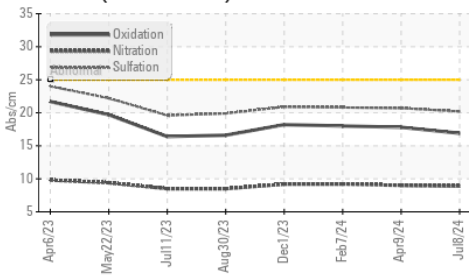
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.6	0.7	0.8
Nitration	Abs/cm	*ASTM D7624	>20	8.9	9.0	9.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.2	20.7	20.8

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.9	17.8	18.0
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.7	7.3	7.2

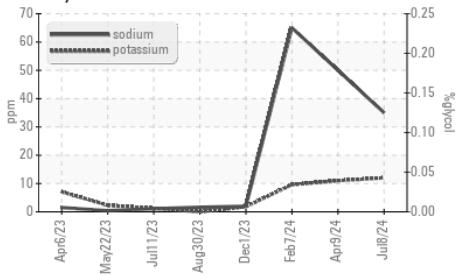


OIL ANALYSIS REPORT

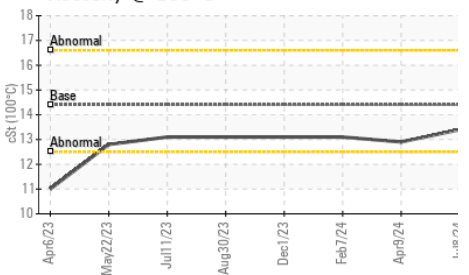
FT-IR (Direct Trend)



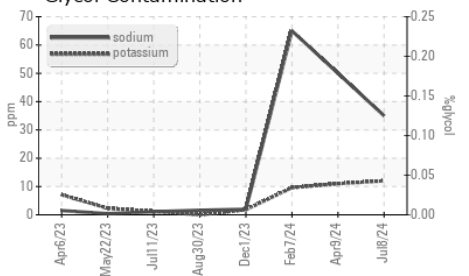
Glycol Contamination



Viscosity @ 100°C



Glycol Contamination

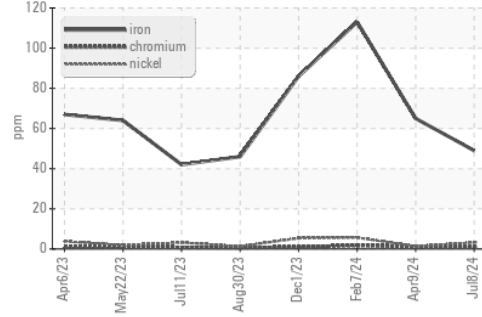


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.21	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

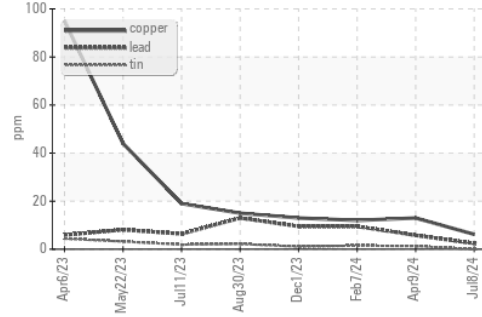
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	13.4	12.9

GRAPHS

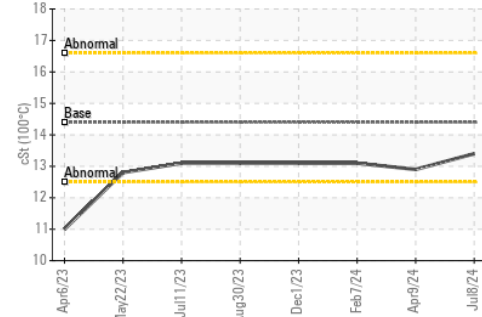
Ferrous Alloys



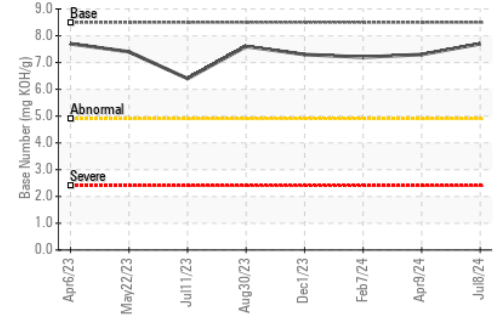
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : WC0899091 Received : 15 Jul 2024
 Lab Number : 06235463 Tested : 16 Jul 2024
 Unique Number : 11124297 Diagnosed : 16 Jul 2024 - Don Baldrige
 Test Package : CONST (Additional Tests: Glycol, TBN)

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)