



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
Contracting
 Machine Id
4272 4272
 Component
Diesel Engine
 Fluid
MOBIL 15W40 (2 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0939233	WC0784497	WC0596502
Sample Date		Client Info		23 May 2024	13 Feb 2023	19 Jul 2021
Machine Age	hrs	Client Info		6651	6470	6111
Oil Age	hrs	Client Info		182	359	270
Filter Age	hrs	Client Info		182	359	270
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	9	10	13
Chromium	ppm	ASTM D5185m	>20	<1	1	1
Nickel	ppm	ASTM D5185m	>2	<1	0	<1
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	5	4	3
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	<1	2	1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

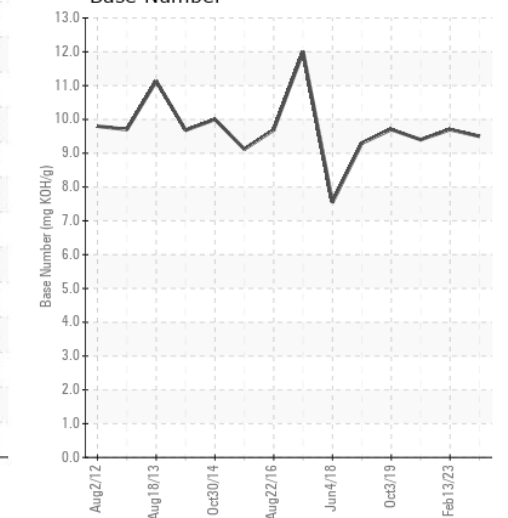
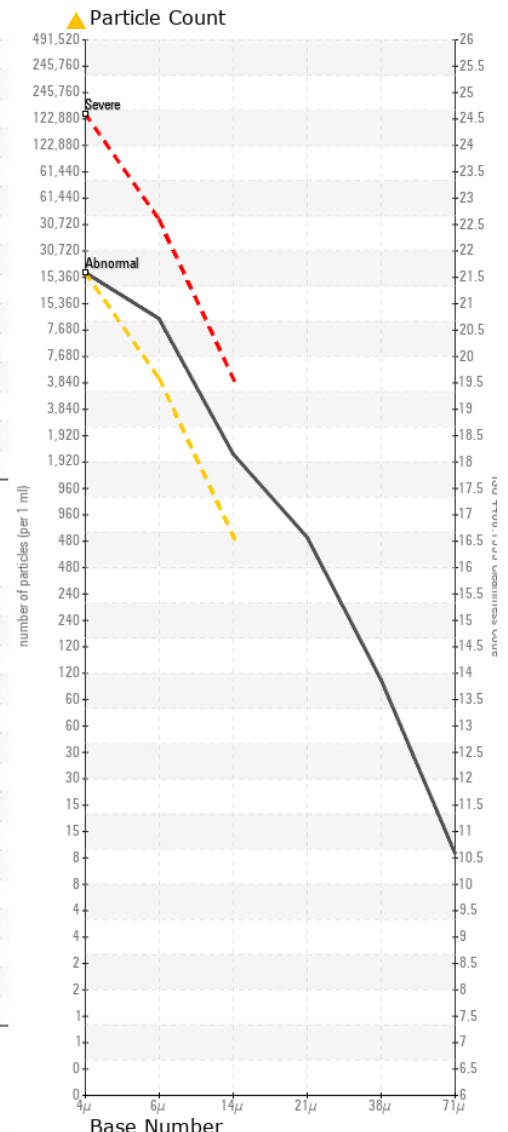
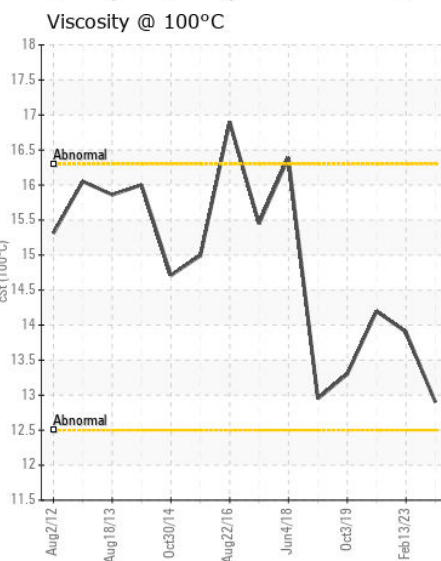
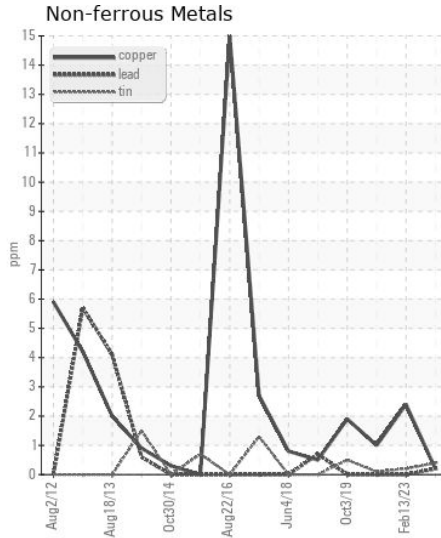
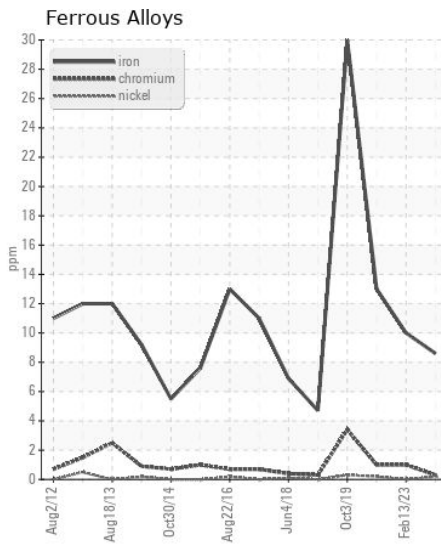
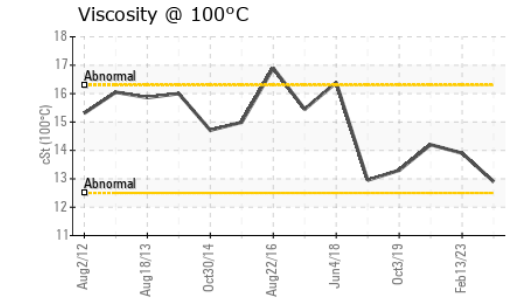
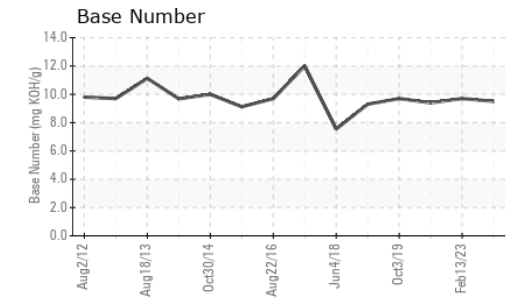
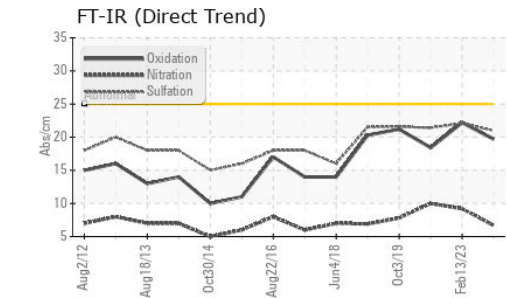
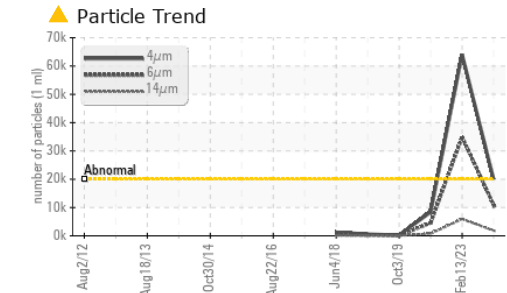
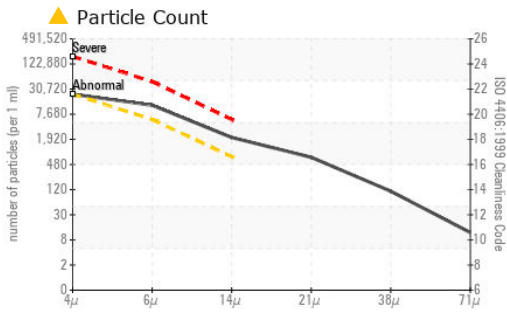
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>25	13	9	11
Potassium	ppm	ASTM D5185m	>20	3	<1	2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	6.7	9.2	10
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.0	22.1	21.4
Particles >4µm		ASTM D7647	>20000	▲ 20070	▲ 64047	8350
Particles >6µm		ASTM D7647	>5000	▲ 10933	▲ 34890	4549
Particles >14µm		ASTM D7647	>640	▲ 1861	▲ 5938	● 774
Particles >21µm		ASTM D7647	>160	▲ 627	▲ 2000	● 261
Particles >38µm		ASTM D7647	>40	▲ 97	▲ 309	40
Particles >71µm		ASTM D7647	>10	▲ 10	▲ 32	4
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 22/21/18	▲ 23/22/20	● 20/19/17
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>118	4	3	5
Boron	ppm	ASTM D5185m		79	67	101
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		49	43	23
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		529	572	662
Calcium	ppm	ASTM D5185m		1672	1815	1468
Phosphorus	ppm	ASTM D5185m		772	756	725
Zinc	ppm	ASTM D5185m		919	940	863
Sulfur	ppm	ASTM D5185m		2783	3105	2328
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.7	22.2	18.4
Base Number (BN)	mg KOH/g	ASTM D2896		9.5	9.7	9.4
Visc @ 100°C	cSt	ASTM D445		12.9	13.9	14.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0939233 **Received** : 28 May 2024
Lab Number : 06193451 **Tested** : 31 May 2024
Unique Number : 11050203 **Diagnosed** : 31 May 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PrtCount, TBN)

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)

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