



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
877/M-4
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0868257	WC0617320	WC0617360
Sample Date		Client Info		16 May 2024	01 Nov 2021	30 Aug 2021
Machine Age	mths	Client Info		0	0	0
Oil Age	mths	Client Info		0	0	0
Filter Age	mths	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ATTENTION	MARGINAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	22	6	7
Chromium	ppm	ASTM D5185m	>20	1	<1	1
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	1	<1	<1
Aluminum	ppm	ASTM D5185m	>20	4	3	5
Lead	ppm	ASTM D5185m	>40	<1	1	<1
Copper	ppm	ASTM D5185m	>330	2	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

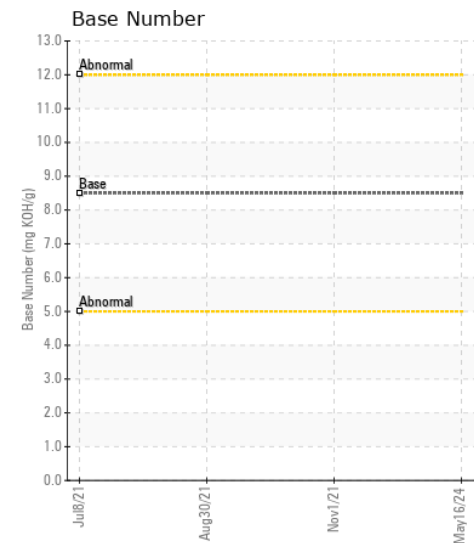
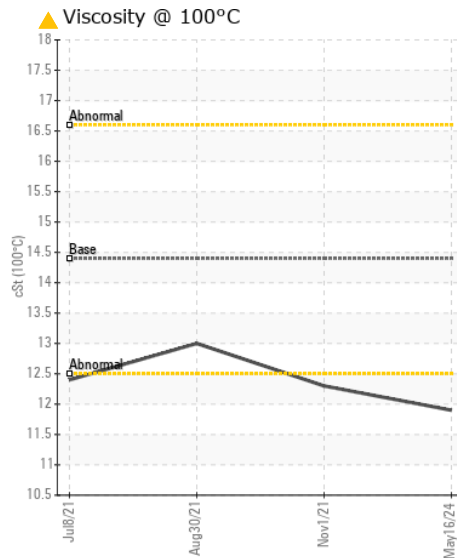
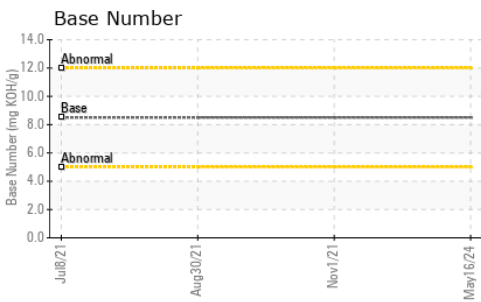
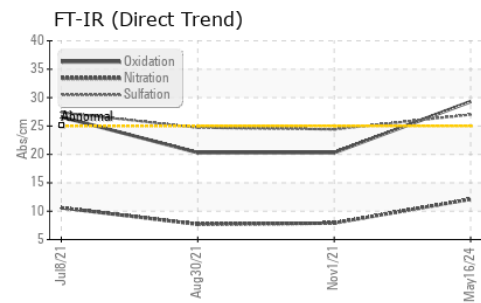
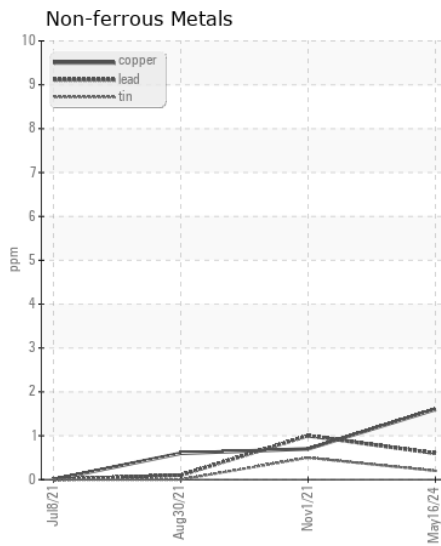
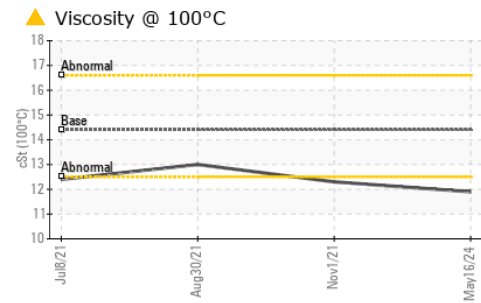
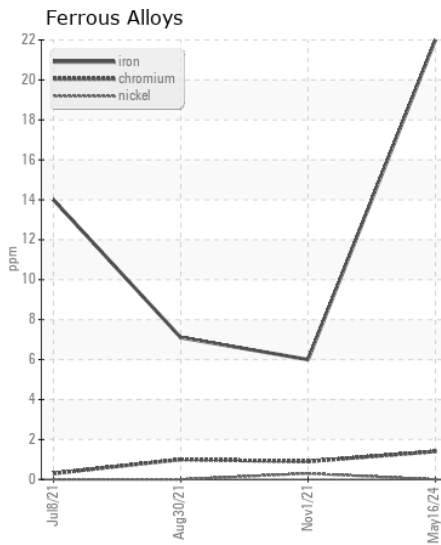
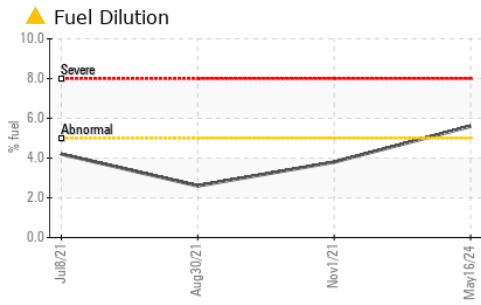
There is a moderate amount of fuel present in the oil.

Silicon	ppm	ASTM D5185m	>25	10	6	7
Potassium	ppm	ASTM D5185m	>20	0	<1	<1
Fuel	%	ASTM D3524	>5	▲ 5.6	▲ 3.8	▲ 2.6
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	12.1	7.9	7.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	27.0	24.4	24.7
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

Fuel is present in the oil and is lowering the viscosity.

Sodium	ppm	ASTM D5185m	>158	2	1	<1
Boron	ppm	ASTM D5185m	250	152	305	322
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	129	113	115
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m	450	667	627	666
Calcium	ppm	ASTM D5185m	3000	1662	1493	1560
Phosphorus	ppm	ASTM D5185m	1150	643	717	732
Zinc	ppm	ASTM D5185m	1350	762	816	825
Sulfur	ppm	ASTM D5185m	4250	2781	2318	2071
Oxidation	Abs/.1mm	*ASTM D7414	>25	29.3	20.3	20.3
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.2	---	---
Visc @ 100°C	cSt	ASTM D445	14.4	▲ 11.9	● 12.3	13.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0868257 **Received** : 23 May 2024
Lab Number : 06188822 **Tested** : 28 May 2024
Unique Number : 11045574 **Diagnosed** : 28 May 2024 - Don Baldrige
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

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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)