



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id

73

Component

Diesel Engine

Fluid

TRC MOLY XL PRO-SPEC IV XP 15W40 (12 GAL)

RECOMMENDATION

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		TR0001302	TR0001227	TR0000850
Sample Date		Client Info		09 Jan 2024	03 Oct 2023	16 May 2023
Machine Age	hrs	Client Info		19809	19660	19124
Oil Age	hrs	Client Info		19809	19660	0
Filter Age	hrs	Client Info		19809	19660	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

The copper level has decreased, but is still abnormal. Elemental level of copper (Cu) probably due to leaching of copper from copper components (i.e. cooling core) by the oil additives. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	22	17	9
Chromium	ppm	ASTM D5185m	>20	1	1	<1
Nickel	ppm	ASTM D5185m	>2	0	1	<1
Titanium	ppm	ASTM D5185m	>2	<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	3	0	2
Lead	ppm	ASTM D5185m	>40	3	3	1
Copper	ppm	ASTM D5185m	>330	▲ 347	▲ 641	5
Tin	ppm	ASTM D5185m	>15	2	3	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

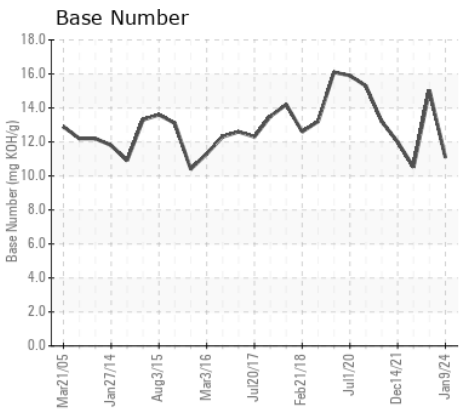
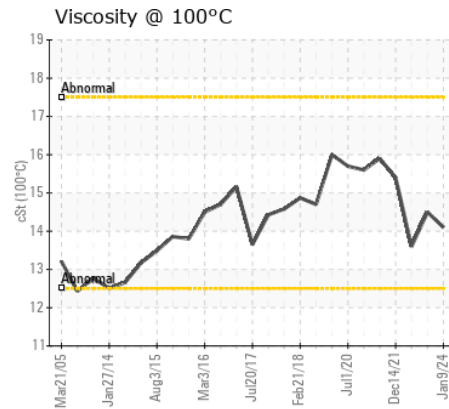
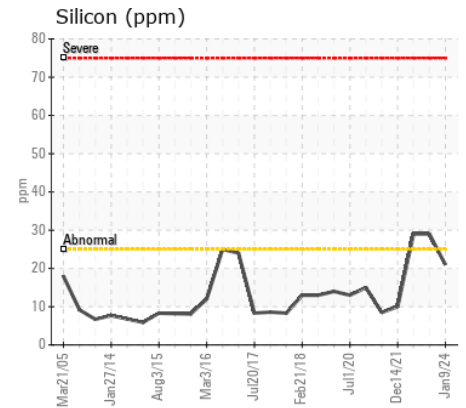
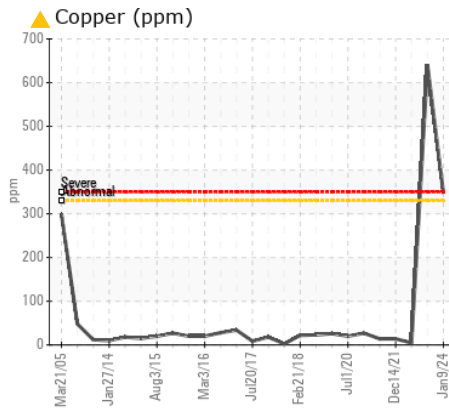
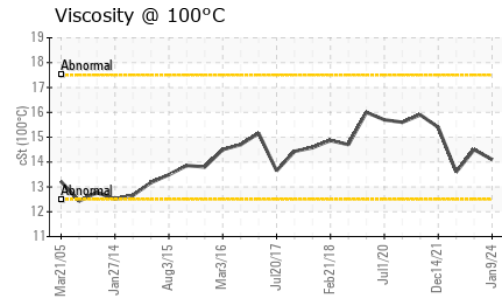
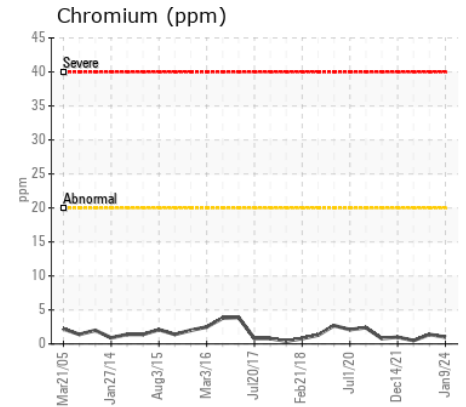
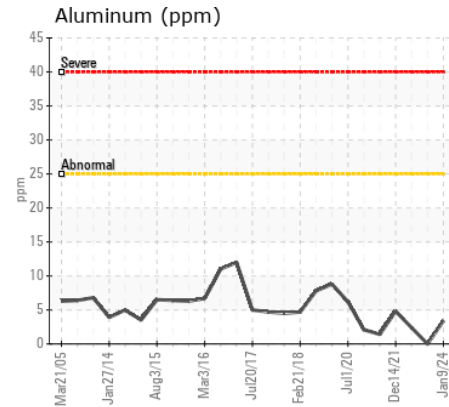
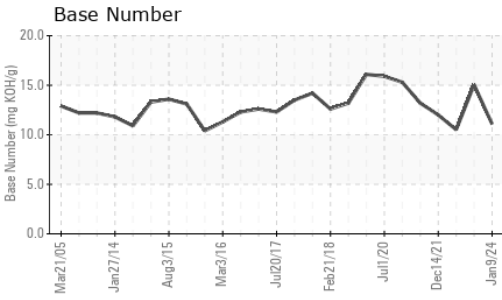
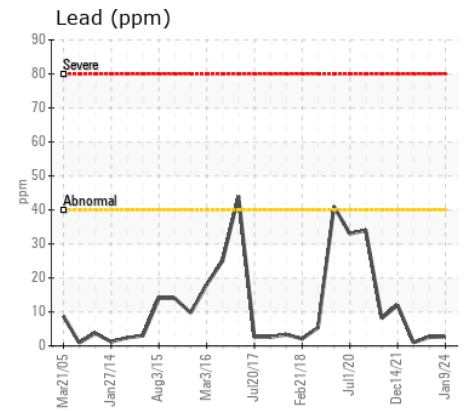
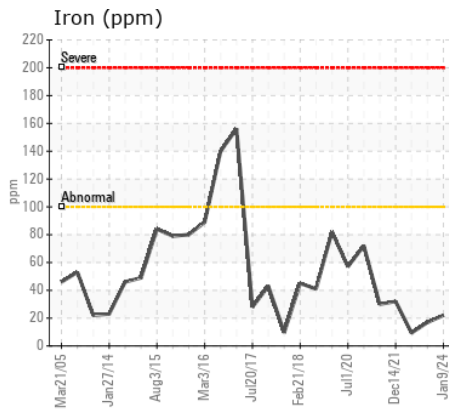
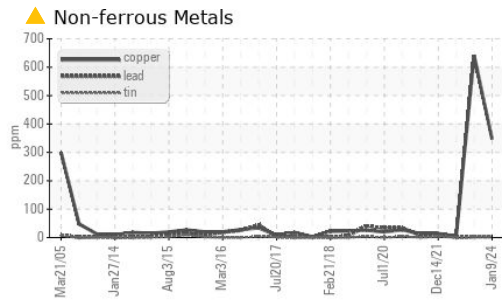
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	21	▲ 29	▲ 29
Potassium	ppm	ASTM D5185m	>20	2	4	5
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.3	0.1
Nitration	Abs/cm	*ASTM D7624	>20	11.4	10.5	5.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.4	19.5	19.1
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		6	6	22
Boron	ppm	ASTM D5185m		6	7	167
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		114	134	36
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		33	43	686
Calcium	ppm	ASTM D5185m		4292	4387	1372
Phosphorus	ppm	ASTM D5185m		976	1042	698
Zinc	ppm	ASTM D5185m		1093	1362	817
Sulfur	ppm	ASTM D5185m		4096	7387	3289
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.0	13.3	12.8
Base Number (BN)	mg KOH/g	ASTM D2896		11.09	15.04	10.51
Visc @ 100°C	cSt	ASTM D445		14.1	14.5	13.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR0001302 **Received** : 12 Jan 2024
Lab Number : 06060437 **Diagnosed** : 16 Jan 2024
Unique Number : 10831819 **Diagnostician** : Don Baldrige
Test Package : MOB 2

S S CONCRETE MATERIALS LLC
P.O. BOX 23283
BULLHEAD CITY, AZ
US 86439
Contact: MARK OPHEIM

To discuss this sample report, contact Customer Service at 1-800-827-0711.
* - 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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