TRAAP
Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
1999 IH 12
Component
Diesel Engine
Fluid
TRC MOLY XL PROSPEC III 15W40 (--- QTS)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

The aluminum level is abnormal. All other component wear rates are normal.

CONTAMINATION

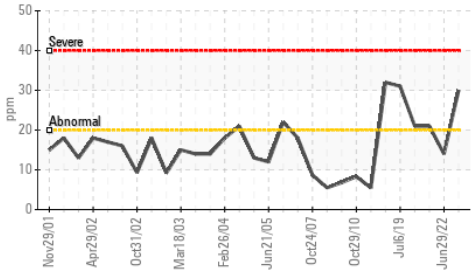
There is no indication of any contamination in the oil.

FLUID CONDITION

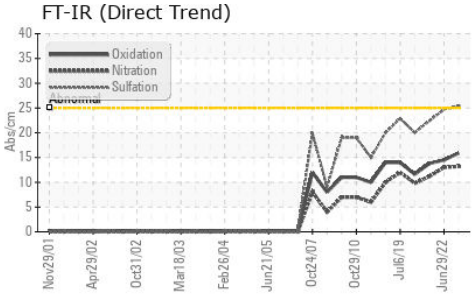
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06224699	TR05593323	TR05245143
Sample Date		Client Info		12 Jun 2024	29 Jun 2022	20 Apr 2021
Machine Age	mls	Client Info		102811	84921	64543
Oil Age	mls	Client Info		10257	10906	9188
Filter Age	mls	Client Info		10257	10906	9188
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	63	41	36
Chromium	ppm	ASTM D5185m	>20	1	<1	1
Nickel	ppm	ASTM D5185m	>4	<1	0	1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	<1	<1	0
Aluminum	ppm	ASTM D5185m	>20	▲ 30	14	21
Lead	ppm	ASTM D5185m	>40	<1	1	2
Copper	ppm	ASTM D5185m	>330	2	2	2
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	23	12	11
Potassium	ppm	ASTM D5185m	>20	11	9	0
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	0.8	0.6	0.4
Nitration	Abs/cm	*ASTM D7624	>20	13.2	13.0	11.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.4	24.7	22.4
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
Sodium	ppm	ASTM D5185m		3	3	4
Boron	ppm	ASTM D5185m		1	17	0
Barium	ppm	ASTM D5185m		4	0	0
Molybdenum	ppm	ASTM D5185m		1145	541	714
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		19	19	18
Calcium	ppm	ASTM D5185m	4500	4331	4915	4404
Phosphorus	ppm	ASTM D5185m		926	986	867
Zinc	ppm	ASTM D5185m	1400	1091	1095	992
Sulfur	ppm	ASTM D5185m		5361	5749	3648
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.9	14.5	13.8
Base Number (BN)	mg KOH/g	ASTM D2896	15	10.91	10.4	12.0
Visc @ 100°C	cSt	ASTM D445	15.5	14.2	14.1	14.2

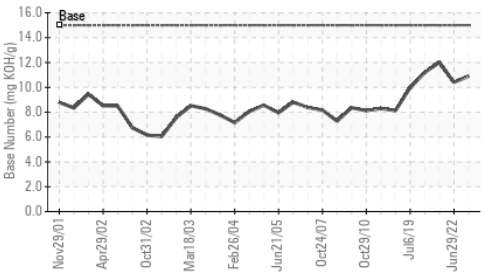
Aluminum (ppm)



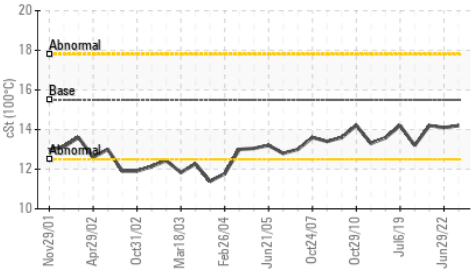
FT-IR (Direct Trend)



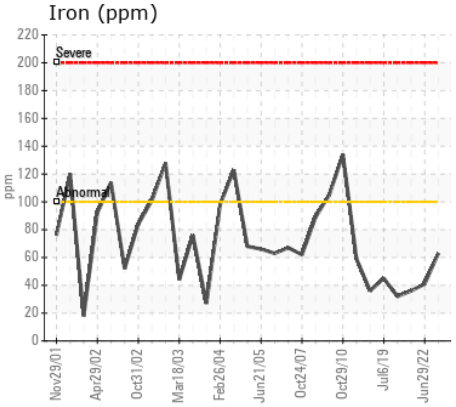
Base Number



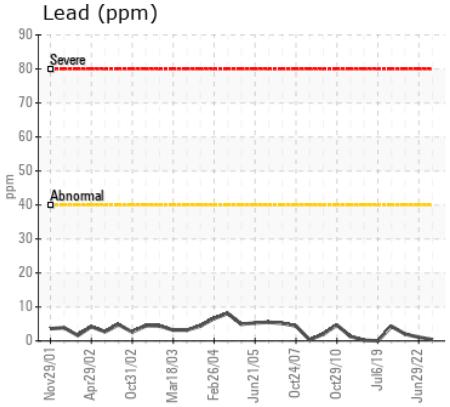
Viscosity @ 100°C



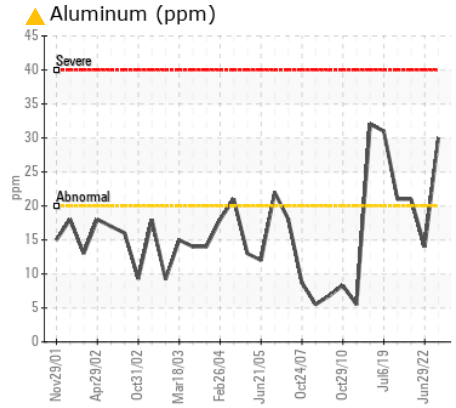
Iron (ppm)



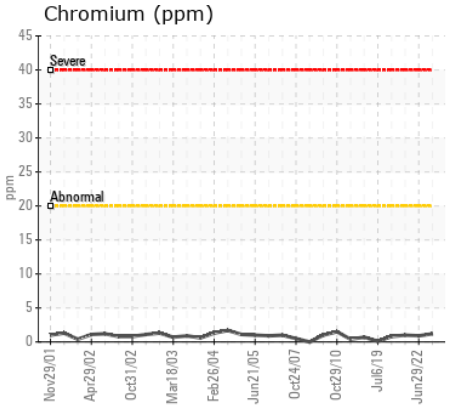
Lead (ppm)



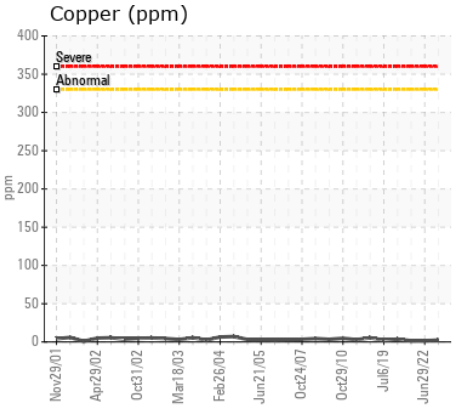
Aluminum (ppm)



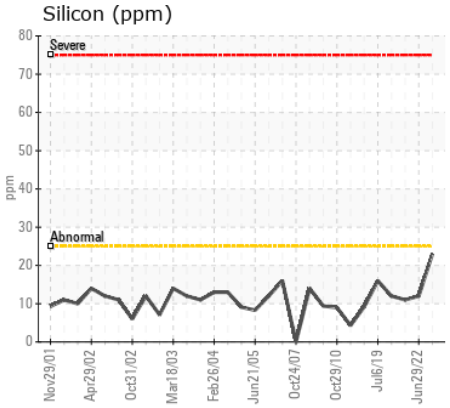
Chromium (ppm)



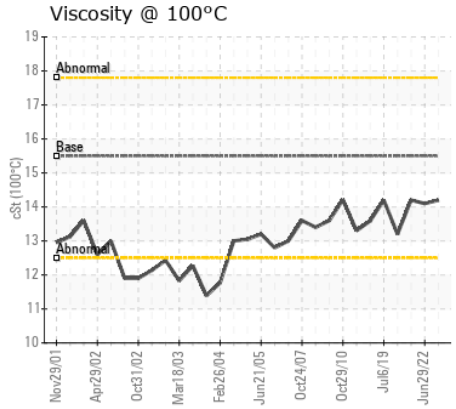
Copper (ppm)



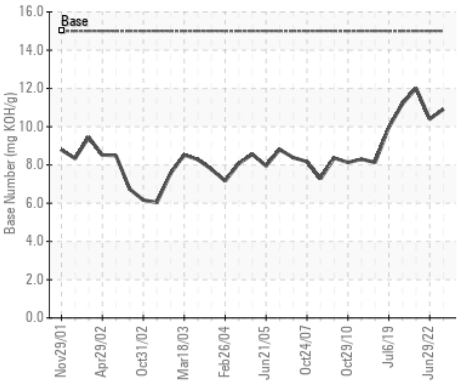
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06224699
Lab Number : 06224699
Unique Number : 11102896
Test Package : MOB 2

Received : 01 Jul 2024
Tested : 02 Jul 2024
Diagnosed : 03 Jul 2024 - Jonathan Hester

ALEXANDER SCHOOLS
6091 AYERS RD
ALBANY, OH
US 45710
Contact: DEAN WISE

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)

T:
F: