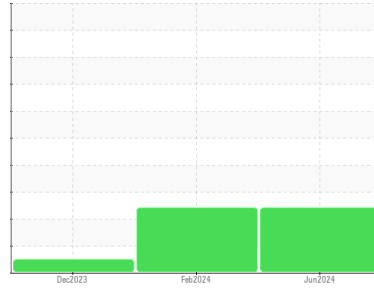


OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Area
LONGVIEW
Machine Id
FORD F28749
Component
Diesel Engine
Fluid
TULCO LUBSOIL CK-4 15W40 (3 GAL)

DIAGNOSIS

▲ Recommendation

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

▲ Contamination

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

▲ Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			TO10003532	TO50002120	TO50000833
Sample Date	Client Info			11 Jun 2024	13 Feb 2024	19 Dec 2023
Machine Age	hrs	Client Info		3746	2908	2508
Oil Age	hrs	Client Info		488	400	421
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				SEVERE	SEVERE	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method	>0.2		NEG	NEG	NEG
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	25	18	24
Chromium	ppm	ASTM D5185m	>20	2	1	1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	1	3
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	<1	<1	<1
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0

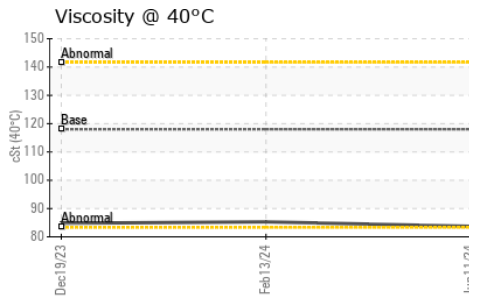
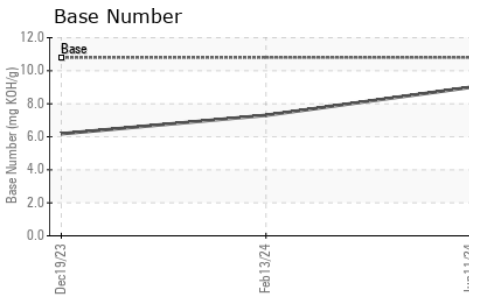
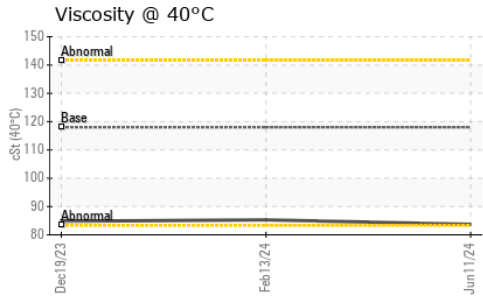
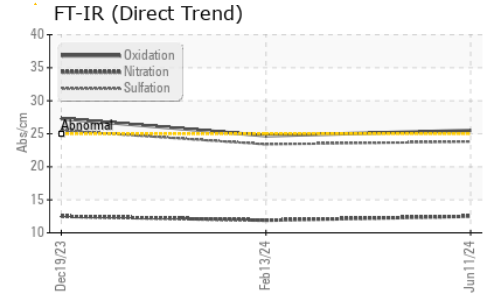
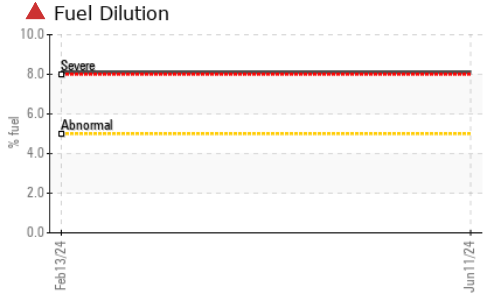
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	4	48
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m	65	64	57	69
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	1060	1035	763	27
Calcium	ppm	ASTM D5185m	1140	1207	1127	1953
Phosphorus	ppm	ASTM D5185m	1170	1103	945	924
Zinc	ppm	ASTM D5185m	1230	1349	1112	1089
Sulfur	ppm	ASTM D5185m	3130	4467	2984	4690

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	5	4	5
Sodium	ppm	ASTM D5185m		1	1	<1
Potassium	ppm	ASTM D5185m	>20	<1	0	1
Fuel	%	ASTM D3524	>5	▲ 8.1	▲ 8.1	<1.0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.4	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	12.5	11.9	12.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.8	23.4	25.5

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	25.5	24.7	27.3
Base Number (BN)	mg KOH/g	ASTM D2896	10.8	9.00	7.3	6.18

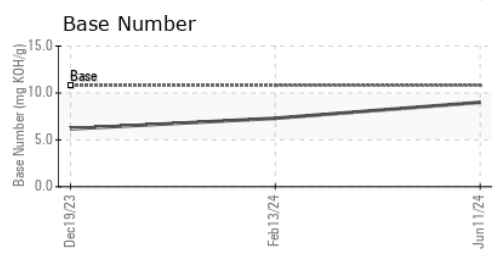
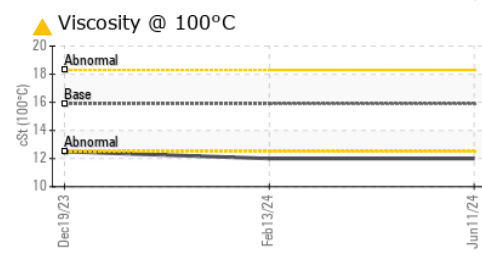
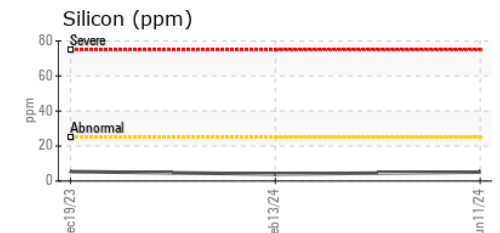
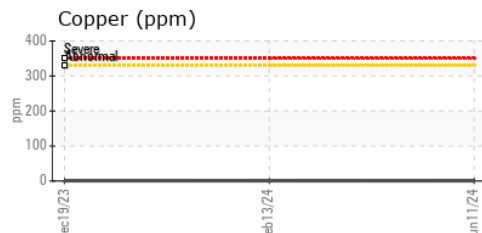
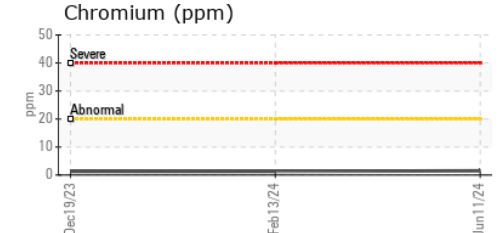
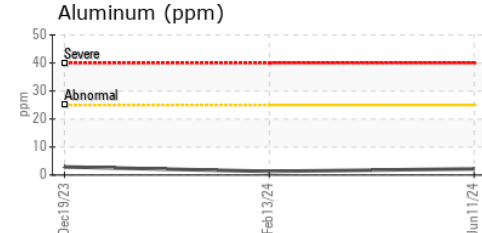
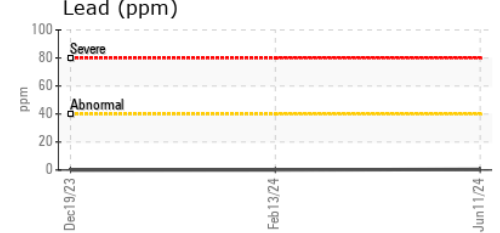
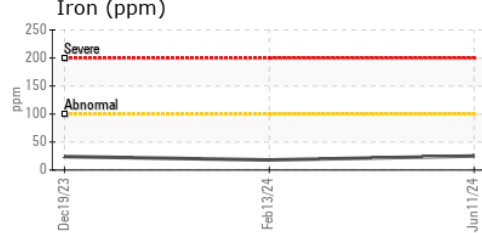
OIL ANALYSIS REPORT



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	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	118	83.7	85.3
Visc @ 100°C	cSt	ASTM D445	15.9	▲ 12.0	12.5
Viscosity Index (VI)	Scale	ASTM D2270	143	137	134

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO10003532 **Received** : 12 Jun 2024
Lab Number : 06208004 **Tested** : 19 Jun 2024
Unique Number : 11075465 **Diagnosed** : 19 Jun 2024 - Jonathan Hester
Test Package : MOB 2 (Additional Tests: KV40, PercentFuel, VI)

KLX ENERGY SERVICES
 5104 ESTES PKWY
 LONGVIEW, TX
 US 75603
 Contact: LESTER GRAY
 lester.gray@klx.com

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)