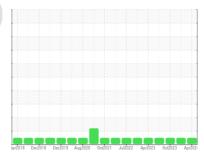


OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id

KENWORTH 3942

Component **Diesel Engine**

DIESEL ENGINE OIL 10W40 (40 QTS)

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

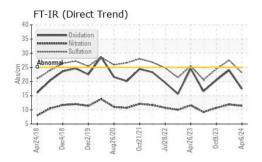
Fluid Condition

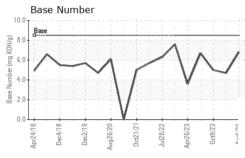
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

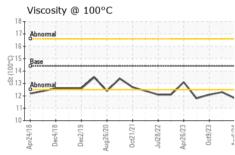
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0906896	WC0863252	WC0663165
Sample Date		Client Info		06 Apr 2024	20 Dec 2023	09 Oct 2023
Machine Age	mls	Client Info		373572	351488	336809
Oil Age	mls	Client Info		351487	274055	26704
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATIO	N	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	19	46	37
Chromium	ppm	ASTM D5185m	>20	0	0	<1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	6	14	14
Lead	ppm	ASTM D5185m	>40	0	<1	0
Copper	ppm	ASTM D5185m	>330	5	3	7
Tin	ppm	ASTM D5185m	>15	<1	2	1
Vanadium	ppm	ASTM D5185m		0	<1	<1
Cadmium	ppm	ASTM D5185m		0	0	<1
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES		memou	IIIIII/Dase	Current	HISTORY	Thotory
Boron	ppm	ASTM D5185m	250	22	20	25
	ppm					
Boron		ASTM D5185m	250	22	20	25
Boron Barium	ppm	ASTM D5185m ASTM D5185m	250 10	22 0	20	25 3
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	250 10	22 0 8	20 0 4	25 3 4
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100	22 0 8 <1	20 0 4 <1	25 3 4 1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450	22 0 8 <1 798	20 0 4 <1 846	25 3 4 1 702
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000	22 0 8 <1 798 1435	20 0 4 <1 846 1512	25 3 4 1 702 1339
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150	22 0 8 <1 798 1435 791	20 0 4 <1 846 1512 779	25 3 4 1 702 1339 664
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350	22 0 8 <1 798 1435 791 887	20 0 4 <1 846 1512 779 907	25 3 4 1 702 1339 664 755
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base	22 0 8 <1 798 1435 791 887 3644	20 0 4 <1 846 1512 779 907 3154	25 3 4 1 702 1339 664 755 2619
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base	22 0 8 <1 798 1435 791 887 3644 current	20 0 4 <1 846 1512 779 907 3154 history1	25 3 4 1 702 1339 664 755 2619 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base	22 0 8 <1 798 1435 791 887 3644 current	20 0 4 <1 846 1512 779 907 3154 history1 9 19 23	25 3 4 1 702 1339 664 755 2619 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25	22 0 8 <1 798 1435 791 887 3644 current 7 64	20 0 4 <1 846 1512 779 907 3154 history1 9	25 3 4 1 702 1339 664 755 2619 history2 10 18
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25	22 0 8 <1 798 1435 791 887 3644 current 7 64 11	20 0 4 <1 846 1512 779 907 3154 history1 9 19 23	25 3 4 1 702 1339 664 755 2619 history2 10 18 24
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel	ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >20 >5	22 0 8 <1 798 1435 791 887 3644 current 7 64 11 <1.0	20 0 4 <1 846 1512 779 907 3154 history1 9 19 23 <1.0	25 3 4 1 702 1339 664 755 2619 history2 10 18 24 <1.0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED	ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >20 >5 limit/base >3	22 0 8 <1 798 1435 791 887 3644 current 7 64 11 <1.0 current	20 0 4 <1 846 1512 779 907 3154 history1 9 19 23 <1.0 history1	25 3 4 1 702 1339 664 755 2619 history2 10 18 24 <1.0 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >20 >5 limit/base >3	22 0 8 <1 798 1435 791 887 3644 current 7 64 11 <1.0 current 0.5	20 0 4 <1 846 1512 779 907 3154 history1 9 19 23 <1.0 history1 1	25 3 4 1 702 1339 664 755 2619 history2 10 18 24 <1.0 history2 0.8
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm	ASTM D5185m ASTM D7844 *ASTM D7844	250 10 100 450 3000 1150 1350 4250 limit/base >25 >20 >5 limit/base >3 >20	22 0 8 <1 798 1435 791 887 3644 current 7 64 11 <1.0 current 0.5 11.4	20 0 4 <1 846 1512 779 907 3154 history1 9 19 23 <1.0 history1 1 11.9	25 3 4 1 702 1339 664 755 2619 history2 10 18 24 <1.0 history2 0.8 10.7
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7624 *ASTM D76145	250 10 100 450 3000 1150 1350 4250 limit/base >25 >20 >5 limit/base >3 >20 >30	22 0 8 <1 798 1435 791 887 3644 current 7 64 11 <1.0 current 0.5 11.4 23.1 current	20 0 4 <1 846 1512 779 907 3154 history1 9 19 23 <1.0 history1 1 11.9 27.5	25 3 4 1 702 1339 664 755 2619 history2 10 18 24 <1.0 history2 0.8 10.7 24.4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm	ASTM D5185m ASTM D7624 *ASTM D7624 *ASTM D7415 method	250 10 100 450 3000 1150 1350 4250 limit/base >25 >20 >5 limit/base >3 >20 >30 limit/base >25	22 0 8 <1 798 1435 791 887 3644 current 7 64 11 <1.0 current 0.5 11.4 23.1	20 0 4 <1 846 1512 779 907 3154 history1 9 19 23 <1.0 history1 1 11.9 27.5 history1	25 3 4 1 702 1339 664 755 2619 history2 10 18 24 <1.0 history2 0.8 10.7 24.4 history2



OIL ANALYSIS REPORT



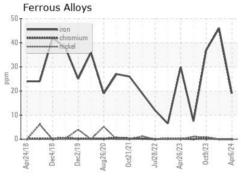


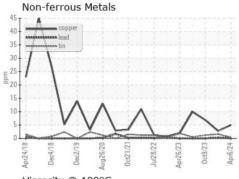


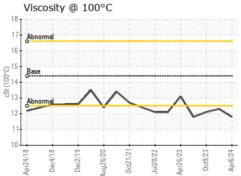
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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
Free Water	scalar	*Visual		NEG	NEG	NEG

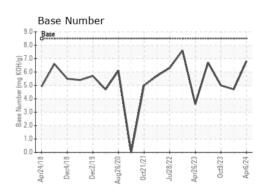
FLUID PROPER	TIES	method				history2
Visc @ 100°C	cSt	ASTM D445	14.4	11.8	12.3	12.1

GRAPHS













Certificate 12367

Laboratory Sample No.

: WC0906896 Lab Number : 06146498 Unique Number : 10976576

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received **Tested**

Diagnosed

: 11 Apr 2024 : 15 Apr 2024

: 15 Apr 2024 - Sean Felton

SUNNYSIDE, WA US 98944 Contact: Barbara Kluever bkluever@lynden.com T: (509)839-5844

LTI/MILKY WAY - SUNNYSIDE

333 MIDVALE RD

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)

Test Package : FLEET (Additional Tests: FuelDilution)

F: (509)839-6556 Contact/Location: Barbara Kluever - LTISUN