



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**VOLVO ECR305CL E-24 (S/N 110578)**

Component  
**Diesel Engine**

Fluid  
**TRC MOLY XL PROSPEC III 15W40 (8 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06089668	TR05970944	TR05871130
Sample Date		Client Info		05 Feb 2024	29 Sep 2023	06 Jun 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		458	600	887
Filter Age	hrs	Client Info		458	600	887
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				NORMAL	ABNORMAL	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	19	88	66
Chromium	ppm	ASTM D5185m	>10	2	12	10
Nickel	ppm	ASTM D5185m	>10	0	2	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	3	0	3
Lead	ppm	ASTM D5185m	>20	0	3	<1
Copper	ppm	ASTM D5185m	>15	5	▲ 53	▲ 60
Tin	ppm	ASTM D5185m	>10	0	3	2
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

**CONTAMINATION**

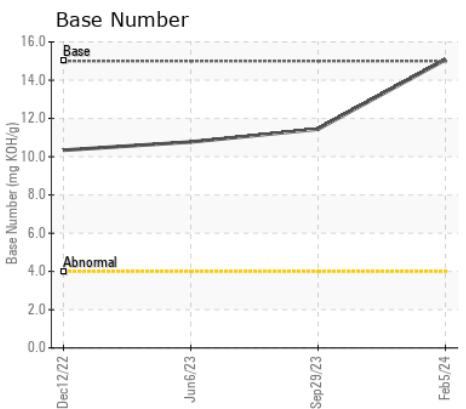
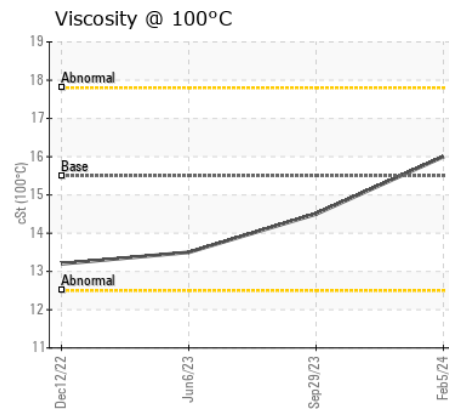
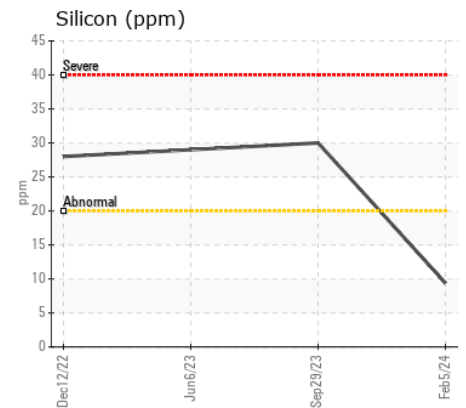
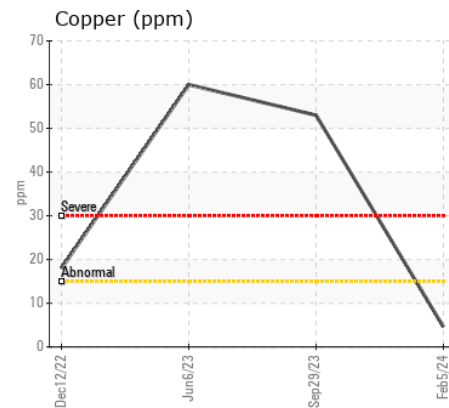
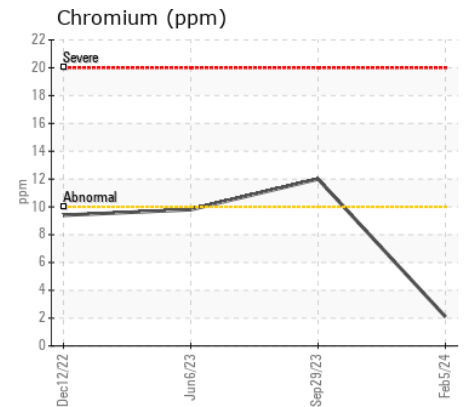
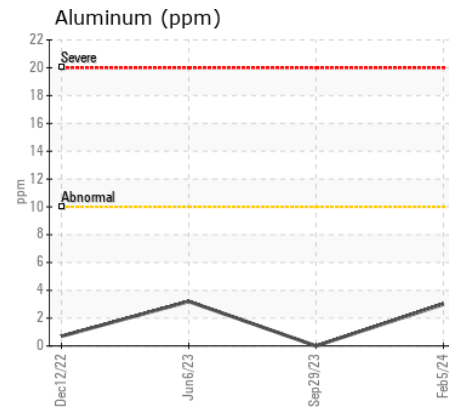
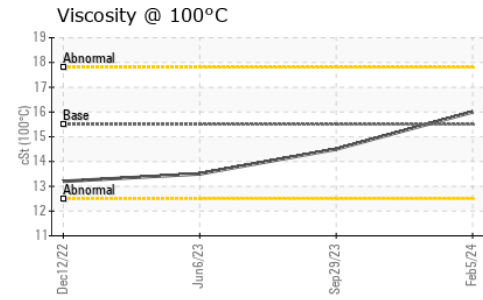
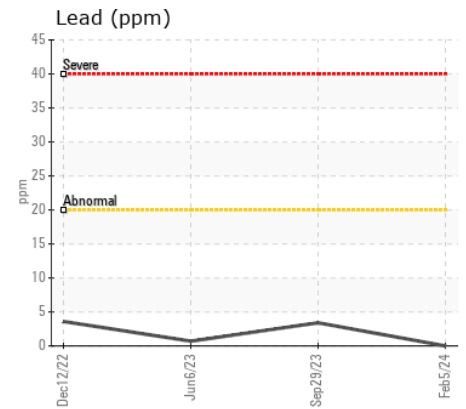
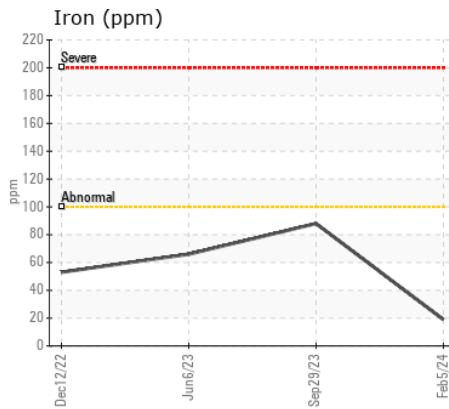
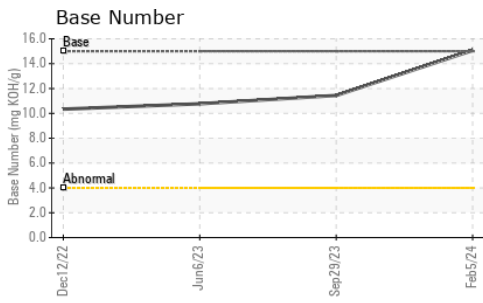
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	9	▲ 30	▲ 29
Potassium	ppm	ASTM D5185m	>20	3	21	17
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.6	1.6	1.3
Nitration	Abs/cm	*ASTM D7624	>20	8.2	11.2	10.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.4	24.6	24.1
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	>0.1	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		2	21	27
Boron	ppm	ASTM D5185m		151	70	85
Barium	ppm	ASTM D5185m		11	0	0
Molybdenum	ppm	ASTM D5185m		161	142	95
Manganese	ppm	ASTM D5185m		0	3	3
Magnesium	ppm	ASTM D5185m		318	597	512
Calcium	ppm	ASTM D5185m	4500	3733	3111	2527
Phosphorus	ppm	ASTM D5185m		872	1196	926
Zinc	ppm	ASTM D5185m	1400	990	1642	1123
Sulfur	ppm	ASTM D5185m		4496	6411	3597
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.5	17.6	17.2
Base Number (BN)	mg KOH/g	ASTM D2896	15	15.07	11.44	10.77
Visc @ 100°C	cSt	ASTM D445	15.5	16.0	14.5	13.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TR06089668  
**Lab Number** : 06089668  
**Unique Number** : 10877113  
**Test Package** : MOB 2

**Received** : 14 Feb 2024  
**Tested** : 16 Feb 2024  
**Diagnosed** : 16 Feb 2024 - Wes Davis

**NUTTER ENTERPRISES INC**  
 28 STONE RD  
 BELMONT, NH  
 US 03220  
 Contact: DON PERCY

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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F: