



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ATTENTION

Machine Id  
**CATERPILLAR 966G 42 (S/N ANZ00375)**

Component  
**Diesel Engine**

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

**RECOMMENDATION**

No corrective action is recommended at this time. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06101172	TR05923611	TR05490174
Sample Date		Client Info		22 Feb 2024	05 Aug 2023	09 Mar 2022
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		35	294	805
Filter Age	hrs	Client Info		35	294	805
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Filter Changed		Client Info		Not Changd	Not Changd	Changed
Sample Status				ATTENTION	ABNORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	0	10	21
Chromium	ppm	ASTM D5185m	>20	<1	<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	4
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	0	1	2
Tin	ppm	ASTM D5185m	>15	0	<1	<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**

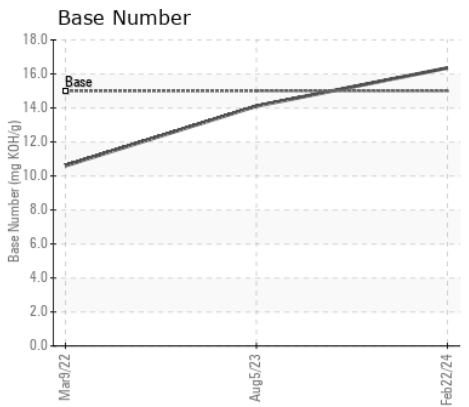
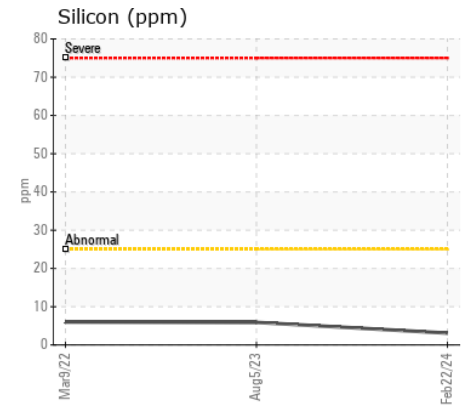
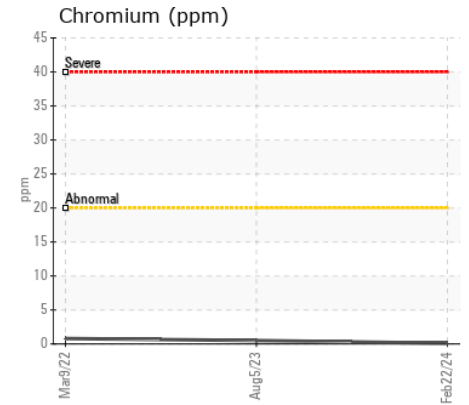
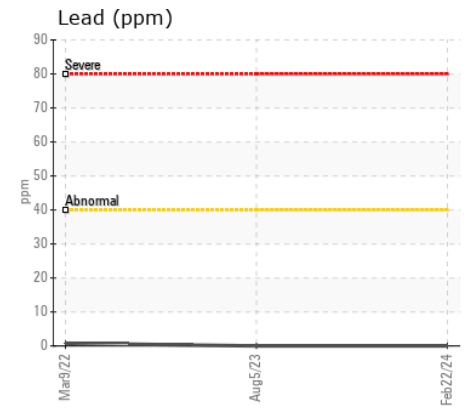
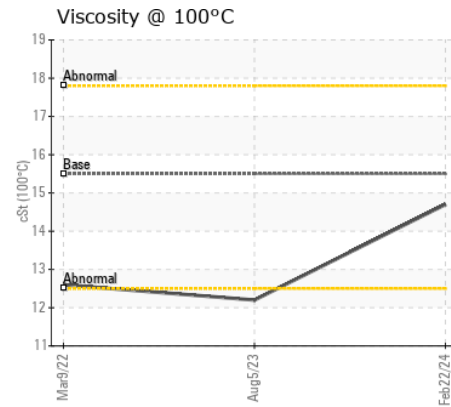
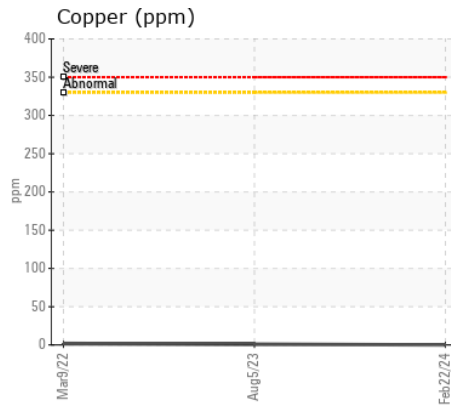
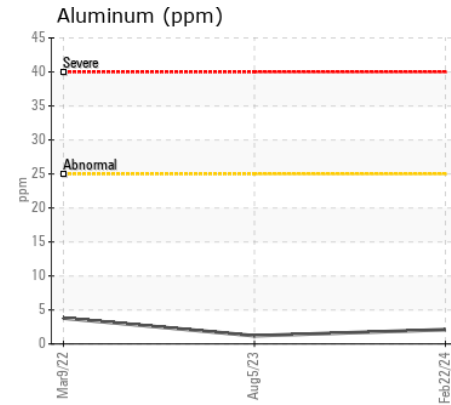
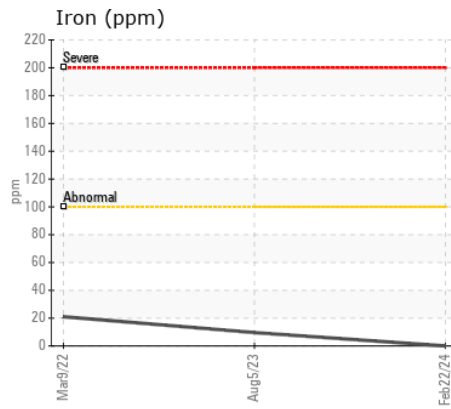
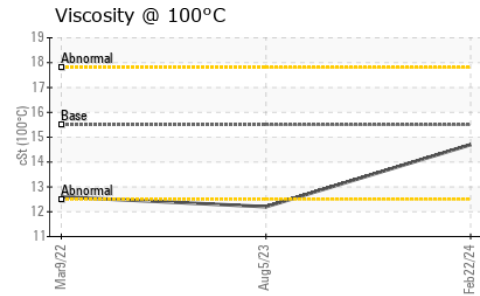
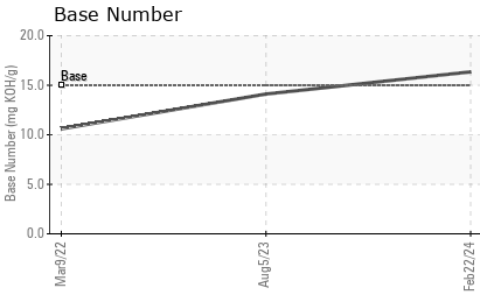
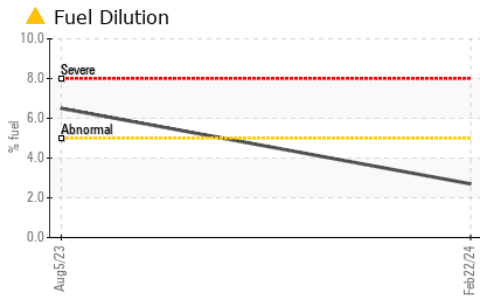
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>25	3	6	6
Potassium	ppm	ASTM D5185m	>20	0	<1	3
Fuel	%	ASTM D3524	>5	▲ 2.7	▲ 6.5	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.2	0.4
Nitration	Abs/cm	*ASTM D7624	>20	7.0	7.4	11.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.4	18.4	24.3
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**

Additive levels indicate the addition of a different brand, or type of oil. 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		0	4	<1
Boron	ppm	ASTM D5185m		● 25	227	175
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		115	186	169
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		● 74	436	373
Calcium	ppm	ASTM D5185m	4500	3666	3905	3875
Phosphorus	ppm	ASTM D5185m		779	905	901
Zinc	ppm	ASTM D5185m	1400	987	1056	1086
Sulfur	ppm	ASTM D5185m		3922	4618	3334
Oxidation	Abs/.1mm	*ASTM D7414	>25	9.3	11.9	17.7
Base Number (BN)	mg KOH/g	ASTM D2896	15	16.35	14.11	10.6
Visc @ 100°C	cSt	ASTM D445	15.5	14.7	▲ 12.2	12.6



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TR06101172 **Received** : 26 Feb 2024  
**Lab Number** : 06101172 **Tested** : 29 Feb 2024  
**Unique Number** : 10899402 **Diagnosed** : 29 Feb 2024 - Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: PercentFuel )

**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: