



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
CATERPILLAR CAT0914MVH2401402

Component
Rear Diesel Engine

Fluid
TRC PRO-SPEC III SYNTHETIC BLEND 15W40 (12 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06075019	TR05971735	TR05868087
Sample Date		Client Info		25 Dec 2023	08 Sep 2023	09 Apr 2023
Machine Age	hrs	Client Info		6636	6177	5240
Oil Age	hrs	Client Info		459	459	461
Filter Age	hrs	Client Info		459	459	461
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	18	12	14
Chromium	ppm	ASTM D5185m	>20	<1	0	<1
Nickel	ppm	ASTM D5185m	>2	0	0	<1
Titanium	ppm	ASTM D5185m	>2	0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>25	4	3	2
Lead	ppm	ASTM D5185m	>40	0	<1	0
Copper	ppm	ASTM D5185m	>330	1	<1	<1
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

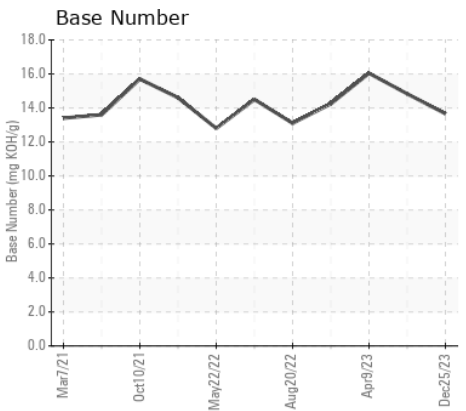
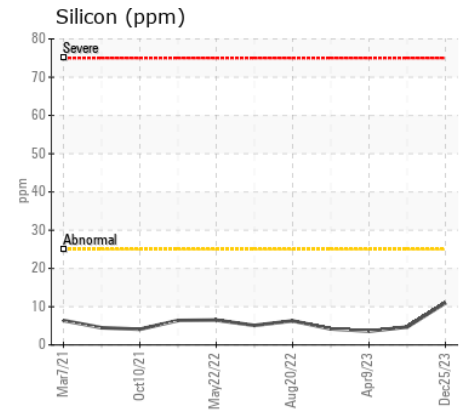
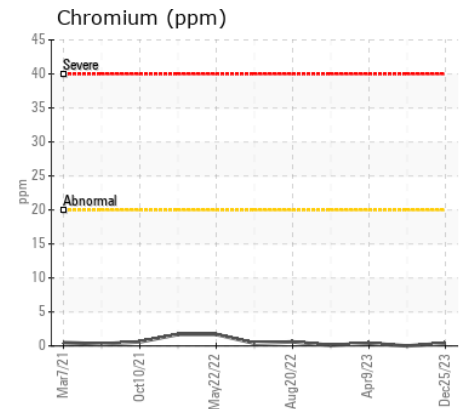
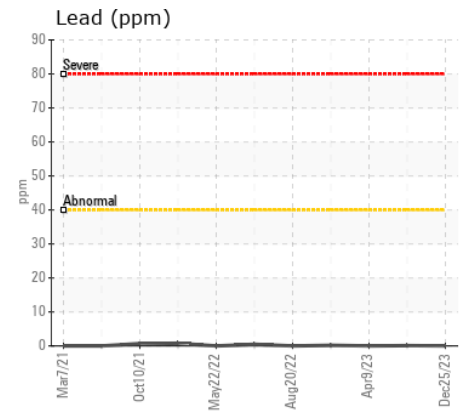
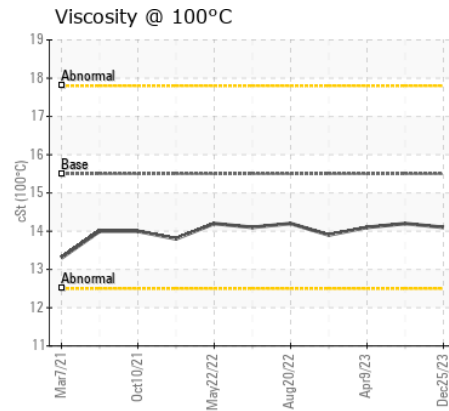
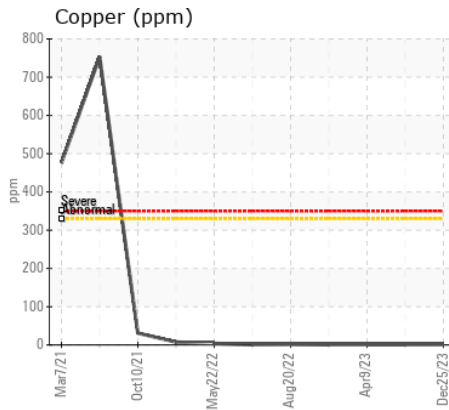
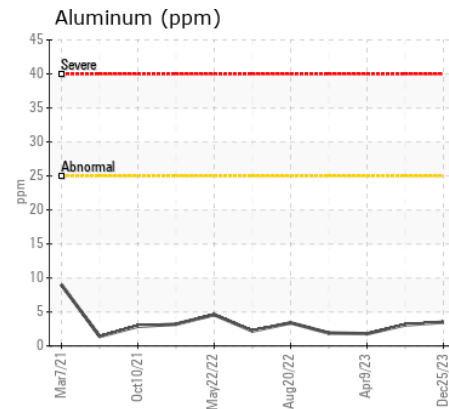
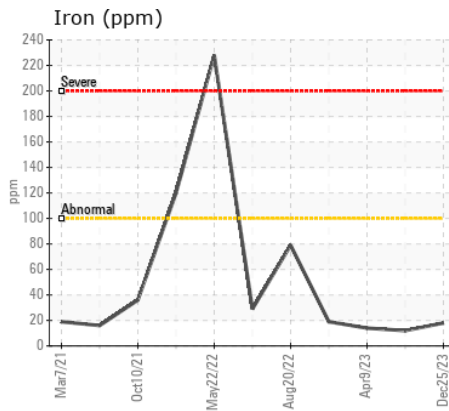
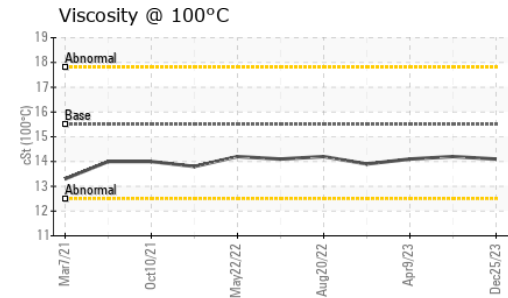
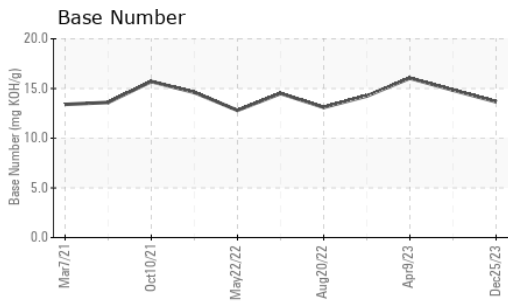
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	11	5	4
Potassium	ppm	ASTM D5185m	>20	16	7	11
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	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	7.6	7.1	7.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.8	19.0	19.2
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

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		7	12	9
Boron	ppm	ASTM D5185m		0	<1	0
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		1	2	2
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		20	23	18
Calcium	ppm	ASTM D5185m		5221	5090	5228
Phosphorus	ppm	ASTM D5185m		1052	1005	1009
Zinc	ppm	ASTM D5185m		1213	1214	1171
Sulfur	ppm	ASTM D5185m		4882	4350	4445
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.0	10.8	10.7
Base Number (BN)	mg KOH/g	ASTM D2896		13.66	14.83	16.04
Visc @ 100°C	cSt	ASTM D445	15.5	14.1	14.2	14.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06075019 **Received** : 30 Jan 2024
Lab Number : 06075019 **Diagnosed** : 31 Jan 2024
Unique Number : 10857110 **Diagnostician** : Wes Davis
Test Package : MOB 2

DOUBLE S DAIRIES
HARTLEY, TX
US 79044
Contact: MIKE LEWIS

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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